+ 85061
TL
830 G49s
U581

WORK PROJECTS ADMINISTRATION

BIBLIOGRAPHY

OF

AERONAUTICS

Supplement

to

Part 4 - Dynamics of the Airplanes

Compiled from the

INDEX OF AERONAUTICS

of the

INSTITUTE OF THE AERONAUTICAL SCIENCES

30 Rockefeller Plaza
New York City

This Index has been prepared for publication by
workers under the supervision of the
FEDERAL WORKS AGENCY
WORK PROJECTS ADMINISTRATION
For the City of New York
O.P. 65-1-97-21-W.P. 14

May
1941

CORNELL
UNIVERSITY
LIBRARY

FOREWORD
to
SUPPLEMENTARY BIBLIOGRAPHIES

Since the publication of the original fifty subjects of this Bibliography, many favorable comments have been received as to its usefulness. The demand from aeronautical organizations, both in the United States and abroad, for supplementary volumes bringing the subjects up to date, has been so great that authorization has been granted and funds allotted by the Work Projects Administration for that purpose. This supplementary volume is issued in response to this demand.

The Project, sponsored by the Mayor of the City of New York, receives the cooperation of the Institute of the Aeronautical Sciences which directs the research and publishing staff workers.

DISTRIBUTION

Requests for these bibliographies have been received to such an extent that it has been impossible to supply the demand. Because of the limited number of copies published, distribution is necessarily restricted. They cannot be sent to individuals or sold. Organizations desiring copies may apply for same by letter, stating the use for which they are required. These requests will be considered in the order received. Should the supply be exhausted, such requests will receive first consideration when additional copies are published.

Address all correspondence to:

John R. Palmer
Work Projects Administration
1505 R.C.A. Building West
New York City

ABBREVIATIONS

A.R.C. R. & M. - Great Britain. Aeronautical research committee. Reports and Memoranda.

A.S.M.E. - American society of mechanical engineers, New York.

Atti Assoc. ital. aerotecn. - Atti dell'Associazione italiana di aerotecnica. Roma.

C.A.H.I. - Central aero-hydrodynamical institute, Moscow.

C.I.N.A. - Commission internationale de navigation aérienne, Genève.

C. R. Acad. sci. - Comptes rendus hebdomadaires des séances de l'Académie des sciences, Paris.

D.V.L. - Deutsche versuchsanstalt für luftfahrt, Berlin.

F.A.I. - Fédération aéronautique internationale, Paris.

H.M. Stat. off. - His Majesty's Stationery office, London.

N.A.A. - National aeronautic association, Washington.

N.A.C.A. - National advisory committee for aeronautics, Washington.

N.P.L. - National physical laboratory, Teddington, England.

Pub. scient. tech. Min. de l'air. - Publications scientifiques et techniques du Ministère de l'air. Service des recherches de l'aéronautique, Paris.

R.A.F. - Royal air force (Great Britain)

R.A.S. - Royal aeronautical society (Great Britain)

Rend. Istituto sper. aer. - Rendiconto dell'Istituto, sperimentale aeronautico, Roma.

S.A.E. - Society of automotive engineers, New York.

U.S. Govt. print. off. - U.S. Government printing office, Washington.

V.D.I. - Verein deutscher ingenieure, Berlin.

W.G.L. - Wissenschaftliche gesellschaft für luftfahrt, Berlin.

Z.A.M.M. - Zeitschrift für angewandte mathematik und mechanik, Berlin.

Z.F.M. - Zeitschrift für flugtechnik und motorluftschiffahrt, München.

TABLE OF CONTENTS

PART 4 - BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

Section I

Control - Balanced..1
Control - Directional.....................................1
Control - Lateral...2
Control - Longitudinal....................................4
Control - Slow Speed and Stall............................6
Control - General...6
Maneuvers..10
Spinning...14
Stability - Automatic....................................17
Stability - Directional..................................18
Stability - Inherent.....................................19
Stability - Lateral......................................20
Stability - Longitudinal.................................22
Stability - General......................................26
Stalled Flight...30
General..32

Section II

BIBLIOGRAPHY ON VIBRATIONS AND FLUTTER

Vibration - Damping......................................36
Vibration - Engine.......................................39
Vibration - Measuring Instruments........................41
Vibration - Propeller....................................44
General..45

Flutter

  Wings and Control Surfaces.............................51
  General..56

AUTHOR INDEX...58

Section I

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

QONTROL - BALANCED

Control-surface mass-balancing, by P. B. Walker. Aircraft engineering, London, Oct. 1940, v. 12, no. 140, p. 290-92. diagrs., illus.

Dynamischer ruderausgleich, von R. Wolff. Forschung aus dem gebiete des ingenieurwesens. Berlin, July - Aug., 1937, v. 8, no. 8, p. 148-91.

Considerations affecting the additional weight required in mass balance of ailerons, by W. S. Diehl. Washington, 1937, 10 p. diagrs., illus. (N.A.C.A. Technical notes no. 609)

Safety in flight-balanced controls, by N.A.V. Piercy. (In his Aerodynamics, New York, D. Van Nostrand co., 1937, chap. 12, p. 381-416. diagrs., illus.)

Wind tunnel investigation of the aerodynamic balancing of upper surface ailerons and split flaps, by Carl J. Wenzinger. Washington, U. S. Govt. print. off., 1936. 18 p. diagrs., illus., tables. (N.A.C.A. report no. 549)

CONTROL - DIRECTIONAL

Rudder problems for 4-engined airplanes, by C. L. Johnson. S. A. E. journal, New York, June 1940, v. 46, no. 6, p. 262-70. diagrs., illus., tables.

Vertical fin area for modern aeroplanes, by Floyd L. Thompson. The Aeroplane, London, Apr. 12, 1940, v. 58, no. 1507, p. 530-31. diagrs., illus., tables.

Auftrieb und moment eines unsymmetrischen doppelflügels, von F. Lösch. Luftfahrtforschung, München und Berlin, Jan. 1940, v. 17, no. 1, p. 22-31. diagr., illus., tables.

Inclined tail planes to take place of vertical fin. Aeroplane, London, Nov. 2, 1939, v. 57, no. 1484, p. 548.

Vertical airplane tail areas, by Raoul J. Hoffman. Popular aviation, Chicago, Apr. 1938, v. 22, no. 4, p. 59-60, 86. illus.

Directional and lateral control, by E. W. S. Wilkins. (In his Aeroplane design, London, Chas. Griffin and co., 1938, sec. 29, chap. 4, p. 92-97. illus.)

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

The Estimation of the rate of change of yawing moment with sideslip, by F. H. Imlay. Washington, 1938, 12 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 636)

Wende-und rollschwingungen eines flugzeuges, von Edmond Bartsch. (In Jahrbuch 1938 der Deutschen luftfahrtforschung. R. Oldenbourg, München und Berlin, 1938, pt. 1, p. 233-48. diagrs., illus., tables)

Het Gevaar van omkeering der roerwerking van de ailerons en hoe dit euvel bestreden wordt, door Bach. Vliegwereld, Haarlem, 1935-1936, v. 1, no. 50, p. 855.

CONTROL - LATERAL

The Fixed leading edge slot and aileron control, by Alexander Klemin. Aero digest, New York, Dec. 1940, v. 37, no. 6, p. 102, 105, 197. illus.

Twin engined safety. Flight, London, Nov. 5, 1939, v. 35, no. 1585, p. 405.

A Correction to the yawing moment due to ailerons for circular wind tunnels, by H. J. Stewart. Journal of Aeronautical sciences, New York, May 1939, v. 6, no. 8, p. 329-31. diagrs., illus.

Quersteuerung von trapezflügeln, von H. B. Irving und A. S. Batson. Deutsche luftwacht, ausgabe Luftwissen, Berlin, Apr. 1939, v. 6, no. 4, p. 143.

Control axes, by W. E. Gray. Flight, London, Mar. 23, 1939, v. 17, no. 3, p. 304a-304d. illus.

Calculation of the rolling motion of an aeroplane, by Y. Imanaka. Journal of the Society of aeronautical sciences of Japan, Tokyo, 1939, v. 6, p. 372-78.

A Flight comparison of conventional ailerons on a rectangular wing and of conventional and floating wing-tip ailerons on a tapered wing, by Hartley Akin Soulé and W. Gracey. Washington, U. S. Govt. print. off., 1939, 5 p. diagrs., illus. (N.A.C.A. report no. 630)

Flight tests of retractable ailerons on a highly tapered wing, by J. W. Wetmore. Washington, 1939, 9 p. diagrs., illus., table. (N.A.C.A. Technical notes no. 714)

Full-scale tests of slotted flaps and ailerons on a courier. London, H. M. Stat. off., 1939, 21 p. diagrs., illus., tables. (A.R.C. R. & M. no. 1819)

CONTROL - LATERAL

Vereinfachte berechnung des rollmoments durch querruderausschlag, von A. Silman und Z. Chabinskaya. Tekhnika vozouschnovo flota, Moscow, 1939, v. 13, no. 1, p. 22-30. illus., tables. (In russian)

Wind-tunnel investigation of effect of yaw on lateral-stability characteristics. I-Four N.A.C.A. 23012 wings of various plan forms with and without dihedral, by M. J. Bamber and R. O. House. Washington, 1939. 9 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 703)

Wind-tunnel investigation of the effect of yaw on lateral-stability characteristics. II Rectangular N.A.C.A. 23012 wing with a circular fuselage and a fin, by M. J. Bamber and R. O. House. Washington, 1939. 9 p. (N.A.C.A. Technical notes no. 730)

Measurement of aileron and flap moments in flight, by R. Schmidt. Luftfahrtforschung, München und Berlin, Aug. 20, 1938, v. 15, no. 8, p. 405-08.

Control by suction. Aeroplane, London, Apr. 6, 1938, v. 54, no. 1402, p. 420.

A Suggested lateral control device for use with full-span flaps. Journal of Aeronautical sciences, New York, Jan. 1938, v. 5, no. 3, p. 95.

A Comparison of aileron control on tapered wings with straight leading edge and straight trailing edge, by H. B. Irving and A. S. Batson. London, H. M. Stat. off., 1938. 7 p. diagrs., (A.R.C. R. & M. no. 1837)

Directional and lateral control, by E. W. S. Wilkins. (In his Aeroplane design, London, Charles Griffin and co., 1938, sec. 29, chap. 4, p. 92-97. illus., tables)

A Flight comparison of conventional ailerons on a rectangular wing and of conventional and floating wing-tip ailerons on a tapered wing, by H. A. Soulé and W. Gracey. Washington, U. S. Govt. print. off., 1938. 5 p. (N.A.C.A. report no. 630)

Wind tunnel investigations of rectangular and tapered N.A.C.A. 23012 wings with plain ailerons and full-span split flaps, by C. J. Wenzinger and M. B. Ames, Jr. Washington, 1938. 11 p. diagrs., tables. (N.A.C.A. Technical notes no. 661)

Wind tunnel tests of three lateral control devices in combination with full span slotted flap on N.A.C.A. 23012 airfoil, by C. J. Wenzinger and M. J. Bamber. Washington, 1938. 11 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 659)

Improved lateral control, by Phiroze P. Nazir. Flight, London, Jan. 28, 1937, v. 14, no. 1, p. 698a-698e. illus., table.

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

An Analysis of lateral stability in power of flight with charts for use in design, by Charles H. Zimmerman. Washington, U. S. Govt. print. off., 1937. 22 p. diagrs., illus., table. (N.A.C.A. Report no. 589)

Experimental research on the effectiveness of ailerons and elevators, by T. Ogawa and K. Itô. Tokyo. Tokyo Imperial university, 1937, v. 12, no. 7, p. 349-420. diagrs. (Aeronautical research institute, report no. 151)

Full-scale wind tunnel and flight tests of Fairchild 22, airplane equipped with Zap flap and Zap ailerons, by C. H. Dearborn and H. A. Soulé. Washington, 1937. 17 p. illus., tables. (N.A.C.A. Technical notes no. 596)

Résumé and analysis of N.A.C.A. lateral control research, by Fred E. Weick and Robert T. Jones. Washington, U. S. Govt. print. off., 1937. 27 p. diagrs., illus., tables. (N.A.C.A. Report no. 605)

Lateral control design, by A. G. B. Metcalf. Journal of Aeronautical sciences, New York, Sep. 1936, v. 3, no. 11, p. 393-97. illus.

The Effect of lateral controls in producing motion of an aeroplane as computed from wind tunnel data, by R. T. Jones and F. E. Weick. Washington, U. S. Govt print. off., 1936. 11 p. (N.A.C.A. Report no. 570)

Full scale tests of hartshorn ailerons on a bulldog, by A. E. W. Nutt. H. M. Stat. off., 1936. 16 p. diagrs., illus., tables. (ARC. R. & M. no. 1734)

Het Gevaar van omkeering der roerwerking van de ailerons en hoe dit euvel bestreden wordt, door Bach. Vliegwereld, Haarlem, 1935-1936, v. 1, no. 50, p. 855.

The Reduction of aileron operating force by differential linkage, by A. I. Nerken and R. T. Jones. Washington, 1936. 7 p. (N.A.C.A. Technical notes no. 586)

CONTROL - LONGITUDINAL

Longitudinal stability and control, by S. B. Gates. Aircraft engineering, London, Sep. 1940, v. 12, no. 139, p. 260-63. illus.

Bahnkurve und steuerung bei der längsbewegung eines flugzeuges, von W. Richter. Ingenieur-archiv, Berlin, Feb. 1940, v. 11, no. 1, p. 24-36.

CONTROL - LONGITUDINAL

Zum problem der längsbewegung eines flugzeuges, von W. Müller. Z.A.M.M., Berlin, Aug. 1939, v. 19, no. 4, p. 193-202. (Abstract Journal of the R.A.S., London, Jan. 1940, p. 94)

Flight altitude control, by Charles H. Colvin. Journal of Aeronautical sciences, New York, Mar. 1939, v. 6, no. 5, p. 206-10. diagrs., illus.

Flugmessungen über den einfluss von schraubenstrahle und landeklappenanstellung auf abwind und staudruck am höhenleitwerk, von E. Eujen. Luftfahrtforschung, Berlin, Jan. 10, 1939, v. 16, no. 1, p. 38-46.

Effects of elevator nose shape, gap, balance, and tabs on the aerodynamic characteristics of a horizontal tail surface, by Harry J. Goett and J. P. Reeder. Washington, U. S. Govt. print. off., 1939. 11 p. (N.A.C.A. Report no. 675)

Zur berechnung der bahnkurven bei der längsbewegung eines flugzeuges, von W. Müller. Ingenieur-archiv, Berlin, Aug. 1938, v. 9, no. 4, p. 258-279. illus., tables.

Über die steuerbarkeit der längsbewegung der flugzeuge, von E. Mettler. Luftfahrtforschung, München und Berlin, July 6, 1938, v. 15, no. 7, p. 345-53.

Verlauf des anrollens beim start, von S. B. Gates. Deutsche luftwacht, ausgabe Luftwissen, Berlin, July 1938, v. 5, no. 7, p. 266.

Longitudinal control, by E. W. S. Wilkins. (In his Aeroplane design, London, Charles Griffin and co., 1938, sec. 24, chap. 4, p. 86-92. diagrs., illus., table)

Longitudinal flow in a training vortex, by W. F. Hilton. H. M. Stat. off., London, 1938. 4 p. (A.R.C. R. & M. no. 1858)

Static longitudinal stability and longitudinal control of autogiro rotors, by M. Shrenk. Washington, 1938. 17 p. diagrs., illus., tables. (N.A.C.A. Technical memorandums no. 879) (Translated Luftfahrtforschung, München und Berlin, June 20, 1938, v. 15, no.6, p. 283-89)

A Study of flying boat take-off, by W. S. Diehl. Washington, 1938, 16 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 643)

Notes on the technique of landing airplanes equipped with wing flaps, by Melvin N. Gough. Washington, 1936. 9 p. diagrs., illus. (N.A.C.A. Technical notes no. 553)

Wind tunnel tests of wing flaps suitable for direct control of glide-path angle. Washington, 1936. 5 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 552)

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

CONTROL - SLOW SPEED AND STALL

The Forces on an airfoil at very low speeds, by A. Thorn and P. Swart. Journal of the R. A. S., London, Oct. 1940, v. 34, no. 358, p. 761-770. illus.

On the sinkage of a ship at low speeds, by T. H. Havelock. Z.A.M.M., Berlin, Aug. 1939, v. 19, no. 4, p. 202-05. diagrs., illus.

Existe-t-il des remèdes à la perte de vitesse? par Léon Claude. Les Ailes, Paris, Nov. 10, 1938, v. 18, no. 908, p. 7. illus., tables.

Das Langsam flugzeug, "Storch," von S. Hoerner. Zeitschrift des V.D.I., Berlin, Mar. 1938, v. 82, no. 13, p. 383-84. diagr., illus.

Notes on longitudinal stability at low speeds, by R. M. Francis and G. E. Pringle. London, H. M. Stat. off., 1938. 6 p. diagrs. (A.R.C. R. & M. no. 1833)

CONTROL - GENERAL

Maneuverability and control surface strength criteria for large airplanes, by H. B. Dickinson. Journal of Aeronautical sciences, New York, Sep. 1940, v. 7, no. 11, p. 469-77. diagrs., illus.

Preventing flutter of control surfaces. Aircraft engineering, London, Apr. 1940, v. 12, no. 134, p. 129. illus.

Stability and control of autogiro rotor, by Alexander Klemin. Aircraft engineering, London, Mar. 1940, v. 12, no. 133, p. 77. illus.

Airplane stability and control from a designer's point of view, by Otto C. Koppen. Journal of Aeronautical sciences, New York, Feb. 1940, v. 7, no. 4, p. 135-40. diagrs., illus., tables. (Abstract Journal of the R.A.S., London, May 1940, p. 458)

Auftrieb und moment von leitwerksprofilen endlicher dicke verschwindenden spalts, von W. Weinberger. Luftfahrtforschung, Berlin, Jan. 20, 1940, v. 17, no. 1, p. 3-11.

Geschwindigkeitsfeld in der umgebung eines leitwerksprofils endlicher dicke verschwindenden spalts, von H. Menzel-Rogner. Luftfahrtforschung, Berlin, Jan. 20, 1940, v. 17, no. 1, p. 11-17.

CONTROL - GENERAL

The Control surfaces, by C. C. Carter. (In his Simple aerodynamics and the airplane, New York, Ronald Press co., 1940, chap. 7, p. 317-40. illus.)

Some data on the static longitudinal stability and control of airplanes. Washington, 1940. 48 p. diagrs., tables. (N.A.C.A. Technical memorandums no. 941)

Les Empennages modernes à double dérive, par B. S. Shenstone. Aircraft engineering, London, Dec. 1939, v. 11, no. 130, p. 2. diagr., illus.

Some problems of the controllability of an airplane, by V. S. Pishnov. Aeronautical engineering, Moscow, Oct. 1939, no. 10, p. 10-22.

British aeronautical research for 1938. Aeroplane, London, Aug. 25, 1939, v. 57, no. 1474, p. 251-54. (Stability and control)

Vergleichende betrachtung verschiedener regelaufgaben hinsichtlich der geeigneten regelgesetzmässigkeit, von W. Oppelt. Luftfahrtforschung, München und Berlin, Aug. 1939, v. 16, no. 8, p. 447-72. illus., table.

Toward a rational method of tail plane design, by A. Silverstein. Journal of Aeronautical sciences, New York, July 1939, v. 6, no. 9, p. 361.

The Flying controls of the aeroplane, by G. T. R. Hill. Journal of the R.A.S., London, June 1939, v. 43, no. 342, p. 411-40. diagrs.

Testing stability and control of aeroplane, by A. G. Baumhauer. Journal of the R.A.S., London, May 1939, v. 43, no. 341, p. 334-69. diagrs., illus.

Empennage design with single and multiple vertical surfaces, by L. E. Root. Journal of Aeronautical sciences, New York, Apr. 1939, v. 6, no. 6, p. 253.

The Control surfaces, by Bradley Jones. (In his Elements of practical aerodynamics, New York, John Wiley and sons, 1939, 2nd ed., chap. 13, p. 265-74. illus.)

The Control systems and auxiliary devices, by C. H. Latimer-Needham. (In his Aircraft design, London, V. I. Chapman and Hall, 1939, chap. 9, p. 101-115. diagrs., illus., tables)

Controls, by F. Workman. (In his Principle of Flight, Aero engineering, London, George Newnes, 1939, v. 1, pt. 1, p. 337-52, 737-68. illus.)

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

The Effect of the masses of the controls on the longitudinal stability with free elevator, by Rudolf Schmidt. Washington, 1939. 18 p. diagrs. (N.A.C.A. Technical memorandums no. 900) (From Luftfahrtforschung, verlag von R. Oldenbourg, München und Berlin, Jan. 10, 1939, v. 16, no. 1, p. 31-37)

On the methods of calculation for the ascending and descending turn of an aeroplane and the controls necessary for them, by Masaiti Kondo. Journal of the Society of aeronautical sciences of Japan, Tokyo, 1939, v. 6, no. 51, 38 p.

Stability and control, by F. Workman. (In his Principles of flight. Aero engineering, London, George Newnes, 1939, v. 1, pt. 1, p. 325-36. illus.)

The Flying controls of the aeroplane, by G. T. R. Hill. Flight, London, Dec. 15, 1938, v. 34, no. 1564, p. 550e-550h. illus.

Flugzustand beim aussetzen eines motors, von Edwin P. Hartmann. Deutsche luftwacht, ausgabe Luftwissen, Berlin, Dec. 1938, v. 5, no. 12, p. 450.

The Determination of the product of inertia of aircraft control-surfaces. Washington, U. S. Govt. print. off., 1938. 4 p. (Air Corps information circular no. 711) (Abstract Journal of the R.A.S., London, May 1939, v. 43, no. 341, p. 375)

Interactions et gouvernes, par M. S. Ducout. Aérophile, Paris, Apr., May 1938, v. 46, no. 4; 5, p. 87-89; 112-13.

Control by suction. Aeroplane, London, Apr. 1938, v. 54, no. 1402, p. 420.

Control axes, by W. E. Gray. Flight, London, Mar. 23, 1938, v. 35, no. 1578, p. 304a-304d. illus.

Sulla regolarizzazione delle sorgenti idrodinamiche, di U. Cisotti. Atti della Reale accademia delle scienze di Torino, Torino Italy, Jan. 1, Mar. 1938, v. 73, no. 1, p. 245. illus.

Controlling surfaces and mechanism in the Royal aeronautical society's handbook of aeronautics, by J. Laurence Pritchard. London; New York, Isaac Pitman and sons, 1938. 1260 p. diagrs., illus.

Stability and control, by E. W. C. Wilkins. (In his Aeroplane design, London, Charles Griffin and co., 1938, chap. 4, p. 64-97. diagrs., illus.)

Stability and control, by E. F. Relf. (In Handbook of aeronautics of R.A.S., London; New York, Isaac Pitman and son, 1938, v. 1, pt. 1, p. 58-88, 597-98)

CONTROL - GENERAL

Theoretical stability and control characteristics of wings with various amounts of taper and twist, by Henry A. Pearson and Robert T. Jones. Washington, U. S. Govt. print. off., 1938, 17 p. diagrs., illus., tables. (N.A.C.A. Report no. 635)

Control surface and wing stability problems, by A. G. Pugsley. Journal of the R.A.S., London, Nov. 1937, v. 41, no. 323, p. 975-96. illus.

Dynamischer ruderausgleich, von R. Wolff. Forschung aus dem gebiete des ingenieurwesens. Berlin, July - Aug., 1937, v. 8, no. 8, p. 148-91.

Flugbeeinflussung mit zwei steuern, von Robert T. Jones. Deutsche luftwacht, ausgabe Luftwissen, Berlin, July 1937, v. 4, no. 7, p. 229.

Method of fairing control surfaces, by F. N. Dickerman. Journal of Aeronautical sciences, New York, Feb. 1937, v. 4, no. 4, p. 157-59. illus.

Maximum forces applied by pilots to wheel-type controls, by W. H. McAvoy. Washington, 1937. 5 p. diagrs. (N.A.C.A. Technical notes no. 623)

Motion of two-control airplane in rectilinear flight after initial disturbances with introduction of controls following exponential law, by A. Klemin. Washington, 1937. 30 p. illus. (N.A.C.A. Technical notes no. 615)

Note on effects of landing flaps on stability and control, by S. B. Gates. London, H. M. Stat. off., 1937. 6 p. (A.R.C. R. & M. no. 1732)

Stability and control, by N. A. V. Piercy. (In his Aerodynamics, New York, D. Van Nostrand co.; London, The English universities press, 1937. chap. 4; p. 95-137; 381-416. diagrs., illus., tables)

A Study of the two-control operation of an airplane, by Robert T. Jones. Washington, U. S. Govt. print. off., 1937. 16 p. diagrs., illus., tables. (N.A.C.A. Report no. 579)

Stability and control, by Alexander Klemin. Journal of Aeronautical sciences, New York, Dec. 1936, v. 4, no. 2, p. 75.

A New form of control. Aeroplane, London, Sep. 30, 1936, v. 51, no. 1323, p. 420. illus.

Het Gevaar van omkeering der roerwerking van de ailerons en hoe dit euvel bestreden wordt, door Bach. Vliegwereld, Haarlem, 1935-1936, v. 1, no. 50, p. 855.

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

MANEUVERS

Load factors in gusts. (Piloting procedure in rough weather: the V-G recorder; pull-out tests) Flight, London, Feb. 6, 1941, v. 39, no. 1676, p. 111-12. illus.

A Further discussion of down-wind vs. up-wind, by Lawrence F. Motl. Aero digest, New York, Feb. 1941, v. 38, no. 2, p. 121, 196. diagrs., illus.

The Pylon eight, by Daniel J. Brimm, Jr. Aero digest, New York, Feb. 1941, v. 38, no. 2, p. 157. diagrs., illus., tables.

Charts for minimum turning radius and minimum time of turn, by H. W. Sibert. Journal of Aeronautical sciences, New York, Jan. 1941, v. 8, no. 3, p. 123-24. diagrs., illus., tables.

Down-wind vs. up-wind turns, by Richard R. Bloss. Aero digest, New York, Jan. 1941, v. 38, no. 1, p. 155, 232. diagrs., illus., tables.

Calculating take-off run, by Payton Autry. Flying and Popular aviation, Chicago, Nov. 1940, v. 27, no. 5, p. 77-79. diagrs., illus.

Timing the turn, by John R. Hoyt. Aero digest, New York, Nov. 1940, v. 37, no. 5, p. 46, 49. diagrs., illus.

Maneuverability - control surface strength criteria for large airplanes, by H. B. Dickinson. Journal of Aeronautical sciences, New York, Sep. 1940, v. 7, no. 11, p. 469-77. diagrs., illus.

The Puzzling turn, by John R. Hoyt. Flying and Popular aviation, Chicago, Sep. 1940, v. 27, no. 3, p. 33-34, 90. illus., tables.

Landing by the yardstick, by J. Farber. Popular aviation, Chicago, July 1940, v. 27, no. 1, p. 44-46, 76. illus., tables.

Questions d'aérodynamique soulevées par les vols en formation, par F. W. Lanchester. Flight, London, Mar. 28, 1940, v. 37, no. 1630, p. 4. diagrs., illus.

Review of various control problems with special reference to mechanical devices fulfilling certain laws of control, by W. Oppelt. Luftfahrtforschung, Berlin, Feb. 20, 1940, v. 17, no. 2, p. 59-64.

Practice versus theory, by "Indicator." Flight, London, Feb. 1, 1940, v. 37, no. 1623, p. 96d.

MANEUVERS

Flugkurve und steuerung bei der längsbewegung eines flugzeuges, von W. Richter. Ingenieur-archiv, Berlin, Feb. 1940, v. 2, no. 1, p. 24-36.

Ricerche sulla sicurezza di decollo degli aeroplani in relazione alle qualita dell'aeroplano. Rivista Aeronautica, Roma, Jan., Feb. 1940, v. 16, no. 1; 2, p. 105-14; 281-316. illus.

Taking it lying down, by Brian Worley. Aeronautics, London, Nov. 1939, v. 1, no. 4, p. 20-23. diagrs., illus.

Flight loading conditions. Air commerce bulletin, Washington, Sep. 15, 1939, v. 11, no. 3, p. 78-88. tables.

Calculations of a steady turn, by E. V. Ostoslavsky. Aeronautical engineering, Moscow, U.S.S.R., Sep. 1939, v. 13, no. 9, p. 24-43.

Necessary deflection of the elevator when landing, by M. A. Taits. Aeronautical engineering, Moscow, U.S.S.R., Sep. 1939, v. 13, no. 9, p. 43-51.

Dämpfungsarten für die schwingungen des kreiselhorizontes und ihre wirkungen im kurvenflug, von M. Schuler und K. Magnus. Luftfahrtforschung, München und Berlin, June 20, 1939, v. 16, no. 6, p. 319-25. diagr., illus.

Flying controls of aeroplane, by G. T. R. Hill. Journal of the R.A.S., London, June 1939, v. 43, no. 342, p. 411-40. (Also Nature, London, June 1939, v. 143, no. 3634, p. 1049-52)

Influence du vent sur la longueur du décollage, par E. Vellay. E.N.S.A. Revue technique de l'association des ingénieurs de l'aéronautique, Paris, May-June 1939, no. 15, p. 181-82. (Abstract Groupement recherches aéronautiques, Paris, Sep. 20, 1939, v. 20, p. 3218)

Turns in a wind, by D. C. Romick. Aero digest, New York, June 1939, v. 34, no. 6, p. 81-82, 133. diagrs., illus.

Versuchsflüge, von R. P. Alston. Deutsche luftwacht, ausgabe Luftwissen, Berlin, June 1939, v. 6, no. 6, p. 218.

Kurvensteuerung auf vorgeschriebener bahn, von E. Mettler. Deutsche luftwacht, ausgabe Luftwissen, Berlin, Apr. 1939, v. 6, no. 4, p. 145.

Flight research in aerodynamics, by R. P. Alston. Aircraft engineering, London, Mar. 1939, v. 11, no. 121, p. 84-85. diagrs., illus.

Glassy landings. Scientific american, New York, Jan. 1939, v. 160, no. 1, p. 32.

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

Aerial manoeuvres and the equations of motion, by Leonard Bairstow. (*In his* Applied aerodynamics, New York, Longmans, Green and co., 1939, p. 212-57. diagrs., illus.)

Manoeuvres and dynamic loads, by C. H. Latimer-Needham. (*In his* Aircraft design, London, Chapman and Hall, 1939, chap. 11, p. 142-53. diagrs., illus., tables)

On the methods of calculation for the ascending and descending turn of an aeroplane and the controls necessary for them, by Masaiti Kondo. Journal of the Society of aeronautical sciences of Japan, Tokyo, 1939, v. 6, no. 51, 38 p.

On turning flight in an inclined plane, by T. Ogawa. Journal of the Society of aeronautical sciences of Japan, Tokyo, 1939, v. 6, p. 561-73.

Some fundamental considerations in regard to the use of power in landing an aeroplane, by W. S. Diehl. Washington, 1939. 7 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 692)

Uber den gesteuerten waagerechten kurvenflug eines flugzeuges, von E. Mettler. Ingenieur-archiv, Berlin, Oct. 1938, v. 9, no. 5, p. 327-43.

On the correction to be applied to the measured take-off run, by H. Kimura. Tokyo, Imperial university. Aeronautical research institute, Sep. 1938, v. 13, no. 15, p. 453-71. (Report no. 169)

Aerobatics, by Rudolph Lochner. Shell aviation news, London, June 1938, no. 84, p. 22.

Special problems connected with the take-off and landing of aircraft, by J. J. Green. Journal of Aeronautical sciences, New York, June 1938, v. 5, no. 8, p. 313-20.

A Calculation method for accelerated flight and its application, by Jobu Omori. Journal of the Society of aeronautical sciences of Japan, Tokyo, 1938, v. 5, no. 44, p. 1225-42. illus., tables.

The Influence of lateral stability on disturbed motions of an airplane with special reference to the motions produced by gusts, by Robert T. Jones. Washington, Ul S. Govt. print. off., 1938. 10 p. diagrs., tables. (N.A.C.A. Report no. 638)

Loads in manoeuvres, by E. W. C. Wilkins. (*In his* Aeroplane design, London, Charles Griffin and co., 1938, p. 128-30. diagrs., illus.)

MANEUVERS

Meteorological physical limitations of seeing in the atmosphere, by W. Findeisen. Washington, 1938. 7 p. diagrs., illus., tables. (N.A.C.A. Technical memorandums no. 885) (*From* Hauptversammlung der Lilienthal-Gesellschaft für luftfahrtforschung, Berlin, Oct. 13, 1938. 4 p.) (*Also* Meteorologische Zeitschrift, Berlin, Apr. 1938, v. 55, no. 4, p. 121-33)

A Plain calculation method for the fastest and shortest flight in a curve around 180° in the horizontal plane, by M. Kondo. Journal of the Society of aeronautical sciences of Japan, Tokyo, 1938, v. 5, no. 34, p. 109-30. illus., tables.

Theoretical study of various airplane motions after initial disturbance, by F. Haus. Washington, 1938. 62 p. tables. (N.A.C.A. Technical memorandums no. 867) (*Translated* Pub. sci. tech. Min. de l'air, Paris, June 1937, B.S.T., no. 17)

The Transition phase in the take-off of an airplane, by Joseph Warren Wetmore. Washington, U. S. Govt. print. off., 1938. 11 p. diagrs., illus., tables. (N.A.C.A. Report no. 626)

Wende und rollschwingungen eines flugzeuges, von Edmund Bartsch. (*In* Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin. R. Oldenbourg, 1938, p. 233-48. diagrs., illus.

Flight test research on a small bi-motor airplane, by Clarence L. Johnson. Journal of Aeronautical sciences, New York, Sep. 1937, v. 4, no. 11, p. 473.

Radius of curvature in the correct turn, by S. G. Santangelo. L'Aerotecnica, Roma, Aug.-Sep. 1937, v. 18, no. 2, p. 751-61. illus.

La Ressource et le looping dans le pilotage automatique par girouettes Constantin, par J. Mottez. L'Aéronautique, Paris, Sep. 1937, v. 16, no. 177, p. 93-99. diagrs., illus.

Charts expressing the time, velocity and altitude relations for an airplane diving in a standard atmosphere, H. A. Pearson. Washington, 1937. 10 p. diagrs. (N.A.C.A. Technical notes no. 599)

Flight measurements of the dynamic longitudinal stability of several airplanes and a correlation of the measurements with pilots' observations of handling characteristics, by Hartley A. Soulé. Washington, U. S. Govt. print. off., 1937. 6 p. diagrs., tables. (N.A.C.A. Report no. 578)

Die Flugzeugkurssteuerung im geradeausflug, von Winfred Oppelt. Jahrbuch 1937 der Deutschen luftfahrtforschung, München und Berlin. R. Oldenbourg, 1937, p. 23-34. diagrs., illus., tables.

Maximum forces applied by pilots to wheel-type controls, by William H. McAvoy. Washington, 1937. 5 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 623)

Essais de maniabilité et instruments, par F. Haus. L'Aéronautique, Paris, Oct. 1936, v. 18, no. 209, in supplement (l'Aérotechnique, Paris, v. 15, no. 166) p. 129-39. diagrs., illus., tables.

Over het verschijnsel "groundloop" van vliegtuigen, door T. J. W. van Lammeren. Polytechnisch weekblad, Amsterdam, Jan. 1936, v. 30, no. 1, p. 28-31. illus.

Consideration of the take-off problem, by Edwin P. Hartmann. Washington, 1936. 10 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 557)

Notes on the technique of landing airplanes equipped with flaps, by Melvin N. Gough. Washington, 1936. 9 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 553)

SPINNING

Stalls and spins must go! by T. Hardin. Popular aviation, Chicago, July 1940, v. 27, no. 1, p. 14-15, 66, 68. illus.

La Galleria verticale per le esperienze di avvitamento, di A. Vannucci e V. Ciampolini. Atti di Guidonia, Roma, Mar. 10, 1940, v. 18, no. 23, p. 37-56. diagrs., illus.

Stalls and spins, by Assen Jordanoff. Canadian aviation, Toronto, Mar. 1940, v. 13, no. 3, p. 16-17. illus.

Metodi sperimentali per lo studio della vite, di A. Vannucci. L'Aerotecnica, Roma, Feb. 2, 1940, v. 20, no. 2, p. 79-89. (Abstract Aero digest, New York, Dec. 1940, v. 6, p. 168)

Free spinning wind-tunnel tests of a low-wing monoplane with systematic changes in wings and tails, by O. Seidman and A. I. Neihouse. Washington, U. S. Govt. print. off., 1940. 20 p. diagr., illus. (N.A.C.A. Report no. 672)

Spinning of aeroplane YT-2. Aeroplane, Moscow, U.S.S.R., Dec. 1939, no. 23-24, p. 30-32.

Sur un cas où un corps pesant tournant consistant en un noyau solid entouré d'une masse liquide est en équilibre relatif stable, par Georges Giraud. C. R. Acad. sci., Paris, Oct. 23, 1939, v. 209, no. 17, p. 620-23. diagrs., tables.

SPINNING

An Elementary study of the spin, by J. H. Crowe. Aircraft engineering, London, Feb., Mar., Apr., May, June, July 1939, v. 11, no. 120, 121, 122, 123, 124, 125, p. 39-46, 54; 111-14; 121-25; 150-60; 203-08; 273-78. diagrs., illus., tables.

Une Interprétation géométrique du spin, par Jean Mariani. C. R. Acad. sci., Paris, May 8, 1939, v. 208, no. 19, p. 1483-88. diagrs., illus.

Study of recovery from spin. Journal of Aeronautical sciences, New York, May 1939, v. 6, no. 7, p. 301.

El Tirabuzón. Avia, Buenos Aires, Mar. 1939, v. 4, no. 30, p. 69-71.

An Approximate spin design criterion for monoplanes, by O. Seidman and C. J. Donlon. Washington, 1939. 7 p. diagrs., illus., tables.
(N.A.C.A. Technical notes no. 711)

Free-spinning wind-tunnel tests of a low wing monoplane with systematic changes in wings and tails, by O. Seidman and A. I. Neihouse. Washington, U. S. Govt. print. off., 1939.
(N.A.C.A. Report no. 672)

Spinning, by F. Workman. (In his Principles of Flight, Aero engineering, London, George Newnes, 1939, v. 1, pt. 2, p. 747-68. illus.)

Spinning and flutters of airplanes, by C. H. Latimer-Needham. (In his Aircraft design, London, Chapman and Hall, 1939, v. 2, p. 265-68. diagrs., illus.)

En Teoretisk orientering över spinrörelsens aerodynamik. Flygning, Stockholm, Aug. 1938, v. 16, no. 8, p. 5b-6b. illus.

Die Kräfte und momente der luftschraube bei schräganblasung und flugzeugdrehung, von Klingemann und Weinig. Luftfahrtforschung, München und Berlin, Apr. 6, 1938, v. 15, no. 4, p. 206-13. diagrs., illus.

Tailspins to order; naval tests check new planes in flight, by G. C. Mueller. Popular science, New York, Mar. 1938, v. 132, no. 3, p. 44-45. illus.

Analysis of routine tests of monoplanes in the Royal aircraft establishment free spinning tunnel, by E. Finn. London, H. M. Stat. off., 1938. 12 p. illus. (A.R.C. R. & M. no. 1810)

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

Free-spinning wind tunnel tests of a low-wing monoplane with systematic changes in wings and tails III, by O. Seidman and A. I. Neihouse. Washington, 1938. 12 p. Supp. sheets. (N.A.C.A. Technical notes no. 664)

A New spinning test method, by M. Kramer and K. B. Krueger. Washington, 1938. 9 p. (N.A.C.A. Technical memorandums no. 859) (From Luftfahrtforschung, München, Oct. 20, 1937, v. 14, no. 10, p. 475-79. diagrs., illus.)

Spinning, by E. W. C. Wilkins. (In his Aeroplane design, London, Charles Griffin and co., 1938, sec. 17, v. 4, p. 81-83. illus., tables)

Spinning characteristics of wings V - N.A.C.A. 0009, 23018 and 6718 monoplane wings, by M. J. Bamber and R. O. House. Washington, 1938. 12 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 633)

L'Avvitamento dell'aeroplano, di Antonio Eula. L'Aerotecnica, Roma, Dec. 1937, v. 17, no. 12, p. 1011-42. diagrs., illus., tables.

Some experiences and lessons learned in spinning aeroplanes, by James B. Taylor. Journal of the R.A.S., London, Jan. 1937, v. 41, no. 313, p. 1-8.

An Analystical comparison of model and full scale spinning experiments on a Bristol fighter, by R. P. Alston and J. Cohen. London, H. M. Stat. off., 1937. 14 p. diagrs., illus. (A.R.C. R. & M. no. 1726)

Interin report on systematic model research in free spins and low wing monoplanes, by R. H. Francis. London, H. M. Stat. off., 1937. 15 p. diagrs., illus., tables. (A.R.C. R. & M. no. 1714)

Spinning characteristics of XN2Y-1 airplane obtained from the spinning balance and compared with results from the spinning tunnel and from flight tests, by M. J. Bamber and R. O. House. Washington, U. S. Govt. print. off., 1937. 19 p. diagrs., illus., tables. (N.A.C.A. Report no. 607)

Spinning characteristics of wings III - a rectangular and a tapered Clarke Y monoplane wing with rounded tips, by M. J. Bamber and R. O. House. Washington, 1937. 13 p. (N.A.C.A. Technical notes no. 612)

SPINNING

Spinning characteristics of wing IV - changes in stagger of rectangular Clark Y biplane cellules, by M. J. Bamber and R. O. House. Washington, 1937. 14 p. (N.A.C.A. Technical notes no. 625)

Spinning and tail flutter tendencies, and methods by which they can be detected and eliminated, on a full scale model in a wind tunnel, by W. Hunt. Journal of the Aeronautical sciences, New York, Oct. 1936, v. 3, no. 12, p. 425. (Abstract L'Aerotecnica, Roma, Feb. 1937, v. 17, no. 2, p. 139)

Body and tail moments in spin, by H. B. Irving. Aircraft engineering, London, Aug. 1936, v. 8, no. 90, p. 221-22. diagrs., illus.

Contribution of body and tail of airplane to yawing moment in spin, by H. B. Irving, A. S. Batson and J. H. Warsap. London, H. M. Stat. off., 1936. 42 p. (A.R.C. R. & M. no. 1689)

Wind tunnel investigations of aeroplane spin, taking into account the radius of rotation, by P. Jourachenko and E. Verjanskaya. Transactions of the Central aero-hydrodynamical institute, Moscow, U.S.S.R., 1936. 75 p. (Bulletin no. 260)

STABILITY - AUTOMATIC

E.C.A. "Autoptère" aerodynamic surface, suitable for tail planes, by M. Gianoli. La Science aérienne et L'Aérotechnique, Paris, Nov.-Dec. 1939, v. 8, no. 6, p. 175-84.

Comportement d'un avion muni à la fois de volets d'intrados et de girouettes, par L. Constantin. L'Aéronautique, Paris, Mar. 1939, v. 21, no. 238, p. 118-20. illus.

La Girouette de pilotage et l'hyperautostabilité, par J. Mottez. Les Ailes, Paris, Jan. 26, 1939, v. 19, no. 919, p. 7-8. illus.

Dans le tunnel de Saint-Cyr une maquette vole toute seule, par Maurice Victor. Les Ailes, Paris, May 26, 1938, v. 18, no. 884, p. 8-9. illus.

L'Étude de M. Hirsch sur l'avion stabilisé automatiquement et protégé contre les rafales par l'action des ailerons. Les Ailes, Paris, May 26, 1938, v. 18, no. 884, p. 8, 9. diagrs., illus.

L'Autostabilité des avions par la girouette Constantin, par Jean Lacaine. L'Aéronautique (Bulletin L'Aérotechnique) Paris, Apr. 1938, v. 20, no. 227, p. 50-53. diagrs., illus.

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

Stabilisation des avions, par René Hirsch. C. R. Acad. sci., Paris, Jan. 17, 1938, v. 206, p. 161-64. diagrs., illus., tables.

Aerodynamische grundlagen der selbsttätigen stabilisierungseinrichtungen, von F. Haus. (In Jahrbuch 1938 der Deutschen luftfahrtforschung. Ergänzungsband, München und Berlin, R. Oldenbourg 1938, p. 243-47. illus.) (From Hauptversammlung 1938 der Lilienthal-Gesellschaft für luftfahrtforschung, Berlin, Oct. 14, 1938, p. 1-37)

La Girouette Constantin dans l'autostabilité en profondeur des avions, par J. Mottez. Technique aéronautique, Paris, 1938, v. 29, no. 147, p. 45-82. (Also L'Aéronautique (Bulletin L'Aérotechnique) Paris, Sep. 1937, v. 16, no. 177, p. 93-99

Recherches théoriques et expérimentales sur les moyens de soustraire un avion aux accélérations que peuvent engendrer les perturbations atmosphériques, par R. Hirsch. Paris, E. Blondell la Rougery, 1938. 186 p. diagrs., illus., tables. (Pub. scient. tech. du Min. de l'air, B. S. T. no. 138)

Sur la stabilisation automatique des avions, par René Hirsch. C. R. Acad. sci., Paris, June 14, 1937, v. 204, p. 1794-96. diagrs.

Aeroplane stability and the automatic pilot, by F. W. Meredith and P. A. Cooke. Journal of the R.A.S., London, June 1937, v. 41, p. 415-36.

STABILITY - DIRECTIONAL

Vertical fin area for modern aeroplanes, by Floyd L. Thompson. The Aeroplane, London, Apr. 12, 1940, v. 58, no. 1507, p. 530-31. diagrs., illus., tables.

Criterion of vertical fin area for modern aeroplanes, by F. L. Thompson. S. A. E. journal, New York, Apr. 1940, v. 46, no. 4, p. 24.

Directional stability, by C. C. Carter. (In his Simple aerodynamics and the airplane, New York, Ronald press co., 1940, p. 308-15. diagrs., illus.)

Kräfte und momente schräg angeströmter tragflügel, von S. Hoerner. Luftfahrtforschung, Berlin, Apr. 20, 1939, v. 16, no. 4, p. 178-83. illus.

Flight stability - directional stability, by C. H. Latimer-Needham. (In his Aircraft design, London, Chapman and Hall, 1939, chap. 8, p. 96-98)

STABILITY - DIRECTIONAL

Vertical airplane tail areas, by Raoul J. Hoffman. Popular aviation, Chicago, Apr. 1938, v. 22, no. 4, p. 59-60, 86. illus.

Wind-tunnel tests on a low wing monoplane with propellers running. Longitudinal and directional stability, elevator hinge moments, by S. S. Miller and W. H. Albach. Journal of Aeronautical sciences, New York, Feb. 1938, v. 5, no. 4, p. 141-47. diagrs., illus.

The Estimation of the rate of change of yawing moment with sideslip, by Frederick H. Imlay. Washington, 1938. 12 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 636)

Wende-und rollschwingungen eines flugzeuges, von Edmund Bartsch. (In Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938, pt. 1, p. 233-48. diagrs., illus.)

STABILITY - INHERENT

Autogiros have more inherent longitudinal stability than do normal airplanes, by A. Klemin, V. Haugen and S. B. Sherwin. Science, New York, Dec. 8, 1939, v. 90, no. 2345, p. 10-11. illus.

Simple method for determining aerodynamic center of an airfoil, by M. J. Thompson. Journal of Aeronautical sciences, New York, Feb. 1938, v. 5, no. 4, p. 138-40. diagrs., illus.

The Determination of the product of inertia of aircraft control surfaces, by B. Smilg. Washington, U. S. Govt. print. off., 1938. 11 p. illus. (Air corps information circular, no. 711)

Characteristics as affected by variations of the Reynolds number, by Eastman N. Jacobs and Albert Sherman. Washington, U. S. Govt. print. off., 1937. 41 p. (N.A.C.A. Technical report no. 586)

Der Entwurf von flugzeugflügeln von vorgeschriebener statischer stabilität um die querachse, mit besonderer berücksichtigung der konstruction eigenstabiler tragflügel, von H. Wurster. (In Jahrbuch 1937 der Deutschen luftfahrtforschung, München und Berlin. R. Oldenbourg, 1937, p. 115-26. diagr., illus., tables)

Estimation of moments of inertia of airplanes from design data, by H. W. Kirschbaum. Washington, 1936. 7 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 575)

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

STABILITY - LATERAL

New methods of calculation for the determination of a special instability of elastic equilibrium of a cantilever wing, by T. Viola. Journal of the R.A.S., London, Nov. 1940, v. 44, p. 816-26. illus., tables.

Vertical fin area for modern aeroplanes, by Floyd L. Thompson. The Aeroplane, London, Apr. 12, 1940, v. 58, no. 1507, p. 530-31. diagr., illus., tables. (*Also* S. A. E. journal, New York, Apr. 1940, v. 46, no. 4, p. 24)

Lateral stability, by C. C. Carter. (*In his* Simple aerodynamics and the airplane, New York, Ronald Press co., 1940, p. 305-08. diagr., tables)

Seitenstabilität bei hoher flächenbelastung, von L. W. Bryant. Deutsche luftwacht, ausgabe Luftwissen, Berlin, June 1939, v. 6, no. 6, p. 219.

Influence of the fuselage moment of inertia on lateral stability, by W. E. Gray. Flight, London, Mar. 23, 1939, p. 304a-304d. (*Abstract* Groupement pour recherches aéronautiques, Paris, Apr. 10, 1939, v. 4, p. 466)

Schiebe-roll momente bei knickflügeln, von W. Richter. Luftfahrtforschung, Berlin, Feb. 20, 1939, v. 16, no. 4, p. 112-20. illus., tables.

Flight stability-lateral stability, by C. H. Latimer-Needham. (*In his* Aircraft design, London, Chapman and Hall, 1939, chap. 8, p. 93-96. illus.)

Lateral stability, by Leonard Bairstow. (*In his* Applied aerodynamics, New York, Longmans, Green and co., 1939, p. 765-74. diagrs., illus., tables)

Lateral stability, by Bradley Jones. (*In his* Elements of practical aerodynamics, New York, John Wiley and sons, 1939, p. 294-96)

Lateral stability of an airplane rolling on the ground, by M. Kondo. Journal of the Society of aeronautical sciences of Japan, Tokyo, 1939, v. 6, p. 293-12. (*Abstracts* Zentralblatt für mechanik, Berlin, 1939, v. 8, p. 381 *and* G.R.A., Paris, Oct. 20, 1939, v. 23, p. 3635)

Wind-tunnel investigation of effect of yaw on lateral-stability characteristics. I-Four N.A.C.A. 23012 wings of various plan forms with and without dihedral, by M. J. Bamber and R. O. House. Washington, 1939. 9 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 703)

STABILITY - LATERAL

Wind-tunnel investigation of the effect of yaw on lateral-stability characteristics. II Rectangular N.A.C.A. 23012 wing with a circular fuselage and a fin, by M. J. Bamber and R. O. House. Washington, 1939. 9 p. (N.A.C.A. Technical notes no. 730)

Die Seitenstabilität eines luftschiffes bei geradeausfahrt, von W. Bader. Luftfahrtforschung, München und Berlin, June 6, 1938, v. 15, no. 6, p. 275-82.

Vertical airplane tail areas, by Raoul V. Hoffman. Popular aviation, Chicago, Apr. 1938, v. 22, no. 4, p. 59-60, 86. illus.

The Influence of lateral stability on disturbed motions of an airplane with special reference to the motions produced by gusts, by Robert T. Jones. Washington, U. S. Govt. print. off., 1938. 8 p. tables. (N.A.C.A. Report no. 638)

The Lateral stability of highly loaded aeroplanes, by L. W. Bryant and A. G. Pugsley. London, H. M. Stat. off., 1938. 9 p. diagrs., tables. (A.R.C. R. & M. no. 1840)

Lateral stability, by E. W. C. Wilkins. (In his Aeroplane design, London, Charles Griffin and co., 1938, v. 4, no. 13, p. 77-81. diagrs., tables)

Wende-und rollschwingungen eines flugzeuges, von Edmund Bartsch. (In Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938, pt. 1, p. 233-48. diagrs., illus.)

Rolling experiments on a "Puss moth" model, by A. S. Batson, J. H. Warsap and H. J. Gummer. London, H. M. Stat. off., 1936. 8 p. (A.R.C. R. & M. no. 1743) (Abstract Deutsche luftwacht, ausgabe Luftwissen, Berlin, Mar. 1937, v. 4, no. 3, p. 87)

An Analysis of lateral stability in power-off flight with charts for use in design, by Charles H. Zimmerman. Washington, U. S. Govt. print. off., 1937. 16 p. diagrs., illus., tables. (N.A.C.A. Report no. 589)

L'Iperbole di stabilità laterale nella dinamica dei velivoli, di G. A. Crocco. Pontifica Accademica Vatican, Commendazioni, 1937, v. 1, no. 6, p. 175-95.

Lateral equilibrium of aeroplanes at unsymmetrical propeller thrust, by G. A. Scherbakov and F. A. Mamonov. C.A.H.I., Moscow, 1937. 30 p. (Report no. 318)

Lateral stability, by N. A. V. Piercy. (In his Aerodynamics, New York, D. Van Nostrand co., 1937, p. 406-11)

Lateral stability of a single-engined high wing monoplane with airscrew running. Yawing moments due to sideslip and rudder power, by G. A. McMillan, L. W. Bryant and A. G. Gadd. London, H. M. Stat. off., 1937. 41 p. diagrs. (A.R.C. R. & M. no. 1794)

Note sur la stabilité transversale des avions, par E. Vellay. La Science aérienne, Paris, May-June 1936, v. 5, no. 3, p. 175-77.

Experimental study of transverse stability in flight and in a wind tunnel, by L. Coroller. Journées Tech. Int. Aéronaut., Paris, 1936, p. 467-86.

The Lateral stability of highly loaded aeroplanes, by L. W. Bryant and A. G. Pugsley. London, H. M. Stat. off., 1936. 11 p. diagrs. (A.R.C. R. & M. no. 1840)

Neue untersuchung über die seitenstabilität der flugzeuge, von F. Wenk. (In Jahrbuch 1936 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1936, p. 171-77. illus.)

STABILITY - LONGITUDINAL

Longitudinal stability and control, by S. B. Gates. Aircraft engineering, London, Sep. 1940, v. 12, no. 139, p. 260-63. illus.

Zur berechnung von beschleunigten längsbewegungen eines flugzeuges, von Wilhelm Müller. Ingenieur-archiv, Berlin, Apr. 1940, v. 11, no. 2, p. 99-117.

Notes on autogiro rotor longitudinal stability, by A. Klemin, V. R. Haugen and S. B. Sherwin. Journal of Aeronautical sciences, New York, Jan. 1940, v. 7, no. 3, p. 121. (2nd annual rotating wing aircraft meeting)

Requirements for static longitudinal stability, by C. C. Carter. (In his Simple aerodynamics and the airplane, New York, Ronald press co., 1940, p. 300-05. illus.)

Some data on the static longitudinal stability and control of airplanes, by A. Martinov and E. Kolosov. Washington, 1940. 49 p. diagrs., tables. (N.A.C.A. Technical memorandums no. 941)

Zum problem der längsbewegung eines flugzeuges, von W. Müller. Z.A.M.M., Berlin, Aug. 1939, v. 19, no. 4, no. 193-202. (Abstract Journal of the R.A.S., London, Jan. 1940, v. 44, p. 94)

Zur berechnung der symmetrischen längsbewegung eines flugzeuges, von K. Solf. Luftfahrtforschung, Berlin, Apr. 20, 1939, v. 16, no. 4, p. 198-208. illus., tables.

STABILITY - LONGITUDINAL

L'Analyse et les essais de la stabilité longitudinale et des qualités des commandes de profondeur des avions, par V. Kocka. Letecky Obzor, Chechoslovakia, Apr. 1939, no. 3, p. 9. diagr.

Considération sur la condition de stabilité statique longitudinale des avions, par M. Wanner. E.N.S.A. Revue technique de l'Association des ingénieurs, de l'aéronautique, Paris, 1939, no. 15, p. 142-150.

The Effect of the masses of the controls on the longitudinal stability with free elevator, by Rudolf Schmidt. Washington, 1939. 18 p. diagrs., illus. (N.A.C.A. Technical memorandums no. 900) (From Luftfahrtforschung, verlag von R. Oldenbourg, München und Berlin, Jan. 10, 1939, v. 16, no. 1, p. 31-37)

Flight stability - longitudinal stability, by C. H. Latimer-Needham. (In his Aircraft design, London, Chapman and Hall, 1939, chap. 8, p. 91-93. diagrs., illus.)

Longitudinal stability, by Frederick K. Teichmann. (In his Airplane design manual, New York, Pitman publishing corp., 1939, chap. 15, p. 229-240. diagrs., illus.)

Mathematical theory of longitudinal stability, by Leonard Bairstow. (In his Applied aerodynamics, New York, Longman, Green and co., 1939, chap. 14, p. 752-765. diagrs., illus., tables)

Zur berechnung der bahnkurven bei der längsbewegung eines flugzeuges, von W. Müller. Ingenieur-archiv, Berlin, Aug. 1938, v. 9, no. 4, p. 258-79. diagrs., tables.

Ground effect with special reference to pitching moments, by W. R. Sears. Journal of Aeronautical sciences, New York, May 1938, v. 5, no. 7, p. 281-85. illus.

Interference effects in relations to longitudinal static stability, by A. Klemin and E. B. Schaefer. Aero digest, New York, Apr. 1938, v. 38, no. 4, p. 29-30.

Wind-tunnel tests on a low wing monoplane with propellers running. Longitudinal and directional stability elevator hinge moments, by W. H. Albach and S. S. Miller. Journal of Aeronautical sciences, New York, Feb. 1938, v. 5, no. 4, p. 141-47. illus., tables.

Longitudinal stability, by E. W. C. Wilkins. (In his Aeroplane design, London, Charles Griffin and co., 1938, v. 4, no. 3, p. 66-72. diagrs., illus.)

Longitudinal stability in relation to use of automatic pilot, by A. Klemin, P. A. Pepper and H. A. Wittner. Washington, 1938. 45 p. diagrs. (N.A.C.A. Technical notes no. 666)

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

Notes on longitudinal stability at low speeds, by R. H. Francis and G. E. Pringle. London, H. M. Stat. off., 1938. 6 p. diagrs., illus.
(A.R.C. R. & M. no. 1833)

Offene fragen der statischen längsstabilität, von P. Doepp. (In Jahrbuch 1938 der Deutschen luftfahrtforschung. München und Berlin, R. Oldenbourg, 1938, pt. 1, p. 226-28. illus.)

Static longitudinal stability and longitudinal control of autogiro rotors, by M. Schrenk. Washington, 1938. 17 p. diagrs., illus., tables. (N.A.C.A. Technical memorandums no. 879) (From Luftfahrtforschung, München und Berlin, June 20, 1938, v. 15, no. 6, p. 283-89)

Uber das mass der dynamischen längsstabilität des flugzeuges, von G. Kalatschev. Tekhnika vosdushnovo flota, Moscow, 1938, no. 12, p. 25-40. illus., tables. (In russian)

Uber den einfluss des luftschraubendrehsinnes auf die längsstabilität von zweimotorigen flugzeugen, von W. Stiess. (In Jahrbuch 1938 der Deutschen luftfahrtforschung. München und Berlin, R. Oldenbourg, 1938, pt. 1, p. 206-19. illus.)

Windkanaluntersuchungen über den einfluss des schrauben-drehsinnes auf die längsstabilität eines zweimotorigen flugzeuges, von R. Seiferth. (In Jahrbuch 1938 der Deutschen luftfahrtforschung. München und Berlin, R. Oldenbourg, 1938, pt. 1, p. 220-25. diagrs., illus.)

Zusammenfassender bericht über abwindmessungen ohne und mit schraubenstrahl, von I. Flügge-Lotz und D. Küchemann. (In Jahrbuch 1938 der Deutschen luftfahrtforschung. München und Berlin, R. Oldenbourg, 1938, p. 172-90. diagrs., illus., tables)

Further studies of the ground effect on the aerodynamic characteristics of an airplane with special reference to tail moment, by J. Tani, H. Itokara and M. Taima. Tokyo, Tokyo Imperial university, Nov. 1937, p. 117-145. illus., tables.
(Aeronautical research institute. Report no. 158)

Longitudinal stability, by H. B. Irving. Aircraft engineering, London, Oct. 28, 1937, v. 15, no. 4, p. 21-23. diagrs., illus. (Also Flight, London, Oct. 28, 1937, v. 32, no. 1505, supp. 434a-434c)

Two new longitudinal stability constants, by A. Klemin and L. G. Beerer. Journal of Aeronautical sciences, New York, Sep. 1937, v. 4, no. 11, p. 453-59.

STABILITY - LONGITUDINAL

Effect of slipstream on longitudinal stability of wing monoplane, by C. M. Bolster. Journal of Aeronautical sciences, New York, Aug. 1937, v. 4, no. 10, p. 411-16.

A Simplified analysis of static longitudinal stability, by Elliot G. Reid. Journal of Aeronautical sciences, New York, July 1937, v. 4, no. 9, p. 375-83. diagrs., illus., tables.

Longitudinal stability, by W. R. Andrews. Aircraft engineering, London, Mar. 25, Apr. 29, 1937, v. 14, no. 3; 4, p. 15-19; 25-28. diagrs., illus., tables.

Longitudinal stability, by J. H. Crowe. Aircraft engineering, London, Mar. 1937, v. 9, no. 97, p. 59-68. diagrs., illus., tables.

Modification to the longitudinal stability derivatives with the constant speed propeller, by Arthur G. B. Metcalf. Journal of Aeronautical sciences, New York, Mar. 1937, v. 4, no. 5, p. 214-15.

Effect of the shape of a wing on the load distribution along the span and on the longitudinal stability, by A. B. Risberg. C.A.H.I., Moscow, 1937. 80 p. (Report no. 335) (Abstract R.A.S., journal, London, Mar. 1939, v. 43, p. 234)

Flight measurements of the dynamic longitudinal stability of several airplanes and a correlation of the measurements with pilots' observation of handling characteristics, by Hartley A. Soulé. Washington, U. S. Govt. print. off., 1937. 6 p. diagrs., illus., tables. (N.A.C.A. Report no. 578)

Introduction to longitudinal stability. Theory on longitudinal stability, by N. A. V. Piercy. (In his Aerodynamics, New York, D. Van Nostrand co., 1937, p. 384-401. diagrs., illus., tables)

Uber die dynamische längsstabilität von flugzeugen, von A. Wolochov. C.A.H.I., Moscow, 1937. 35 p. illus., tables. (Report no. 336)

Versuche mit V-förmigen leitwerken. Flugsport, Berlin, Apr. 29, 1936, v. 28, no. 9, p. 187-88.

Rolling experiments on a "Puss-moth" model, by A. S. Batson, J. H. Warsap and H. J. Gummer. London, H. M. Stat. off., 1936. 8 p. diagrs., illus., tables. (A.R.C. R & M. no. 1743)

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

STABILITY - GENERAL

Experimental determination of hydrodynamic stability, by E. G. Stout. Journal of Aeronautical sciences, New York, Dec. 1940, v. 7, no. 12, p. 55-61. illus.

General relationship between the various systems of reference axes utilised in flight mechanics, by H. J. Rautenberg. Luftfahrtforschung, Berlin, Apr. 20, 1940, v. 17, no. 4, p. 106-22.

Stability and control of autogiro rotor, by Alexander Klemin. Aircraft engineering, London, Mar. 1940, v. 12, no. 133, p. 77. illus.

Airplane stability and control from a designer's point of view, by Otto C. Koppen. Journal of Aeronautical sciences, New York, Feb. 1940, v. 7, no. 4, p. 135-40. diagrs., illus., tables. (Abstract Journal of the R.A.S., London, May 1940, v. 44, p. 458)

The Influence of running propellers on airplane characteristics, by Clark B. Millikan. Journal of Aeronautical sciences, New York, Jan. 1940, v. 7, no. 3, p. 85-106. diagrs., illus.

Stability, by C. C. Carter. (In his Simple aerodynamics and the airplane, New York, Ronald press co., 1940, chap. 6, p. 298-316. illus.)

Modern tail units with double fin. Some examples of what results may be obtained from various devices in actual use, by B. S. Shenstone. Aircraft engineering, London, Dec. 1939, v. 11, no. 130, p. 442-43. tables.

Notes on stability from the pilot's standpoint, by Melvin N. Gough. Journal of Aeronautical sciences, New York, Aug. 1939, v. 6, no. 10, p. 395-98. illus.

Autonomia dei velivoli, di E. Garnbarucci. Rivista aeronautica, Roma, July 1939, v. 15, no. 7, p. 1-7.

Testing stability and control of aeroplanes, by A. G. von Baumhauer. Journal of the R.A.S., London, May 1939, v. 43, no. 341, p. 334-69.

La Stabilité de l'autogiro en vol, par A. Verdurand. Revue de l'armée de l'air, Paris, Mar.-Apr. 1939, v. 11, no. 115, p. 187-91. illus.

Interférences et stabilité, par J. Delsuc. L'Air, Paris, Nov. 1, 1938, Mar. 20, 1939, no. 456; 465, p. 648; 187-88. diagrs.

STABILITY - GENERAL

Krängungs-und kurvenablenkung im flugzeug, von A. Rockel. Seewart, Hamburg, Mar. 1939, v. 8, no. 3, p. 78-83. illus.

On static stability, by A. W. Quick. Junkers-nachrichten, Dessau, Germany, Mar. 1939, v. 10, no. 3, p. 78-84.

Dynamic stability of a helicopter with hinged rotor blades, by K. Hohenemser. Washington, 1939. 17 p. (N.A.C.A. Technical memorandums no. 907) (Also Ingenieur-archiv, Berlin, Dec. 1938, v. 9, no. 12, p. 419-28)

Flight stability, by C. H. Latimer-Needham. (In his Aircraft design, London, Chapman and Hall, 1939, v. 1, chap. 8, p. 90-100. diagrs., illus.)

Stabilitäts und leistungsberechnungen für flugzeuge, von G. Otto. Berlin, C. J. E. Volckmann, 1939. 180 p. illus., tables.

Stability, by Bradley Jones. (In his Elements of practical aerodynamics, New York, John Wiley and sons, 1939, 2nd ed., chap. 14, p. 275-98. diagrs., illus., tables)

Stability, by C. C. Carter. (In his Simple aerodynamics, New York, The Roland press co., 1939, chap. 6, p. 248-63. illus.)

Stability and control, by F. Workman. (In his Principles of flight. Aero engineering, London, George Newnes, 1939, v. 1, p. 1, p. 325-36)

The Stability of plane poiseuille motion, by J. L. Synge. (In Proceedings 5th International congress for applied mechanics, New York, John Wiley and sons, 1939, p. 326-32)

The Stability of the motions of aircraft, by Leonard Bairstow. (In his Applied aerodynamics, New York, Longmans, Green and co., 1939, chap. 14, p. 741-804. diagrs., illus., tables)

Flugzustand beim aussetzen eines motors, von Edwin P. Hartmann. Deutsche luftwacht ausgabe Luftwissen, Berlin, Dec. 1938, v. 5, no. 12, p. 450.

Stabilisierung durch bewegliche flossen, von M. Victor. Deutsche luftwacht ausgabe Luftwissen, Berlin, Dec. 1938, v. 5, no. 12, p. 451.

À la recherche de la stabilité, par Schneider. Les Ailes, Paris, Aug. 4, Sep. 8, 29, Nov. 24, 1938, v. 18, nos. 894; 899; 902; 910, p. 7; 7; 7; 8. diagrs., tables.

National physical laboratory researches on the stability of aircraft. Engineering, London, Nov. 4, 1938, v. 146, p. 527-28. illus.

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

Les Idées d'Étienne Oehmichen sur la stabilité des aérodynes, par G. C. Richard. Les Ailes, Paris, Aug. 11, 1938, v. 18, no. 895, p. 7.

Les Derniers vols du S.F.A.N. stabilisé. Les Ailes, Paris, July 28, 1938, v. 18, p. 13.

Static longitudinal stability and longitudinal control of autogyro rotors, by M. Schrenk. Luftfahrtforschung, Berlin, June 6, 1938, v. 15, no. 6, p. 283-89. (Translated Washington, 1938. 8 p. (N.A.C.A. Technical memorandums no. 879)

Recent research on the improvement of the aerodynamic characteristics of aircraft, by E. F. Relf. Journal of the R.A.S., London, June 1938, v. 42, p. 512-35. illus.

Aircraft efficiencies, by N.A.V. Piercy. The Engineer, London, Apr. 1, 1938, v. 165, no. 4290, p. 374-76.

Note sur la stabilité des avions, par M. Wanner. E.N.S.A. Revue technique de l'association des ingénieurs de l'aéronautique, Paris, Mar.-Apr. 1938, no. 8, p. 99-104. illus.

I Fattori della stabilità staticocinetica nei motovelivoli, di G. A. Crocco. Atti Reale accademia nazionale lincei. Rend. Cl. Sc. Fis. Mat. e Nat., Roma, 1938, v. 28, no. 6, p. 268-75. illus.

Instabile flugzustände, von B. Hesselbach. (In Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938. pt. 1, p. 229-32. illus.)

Recherches théoriques et expérimentales sur les moyens de soustraire un avion aux accélerations qui peuvent engendrer les perturbations atmosphériques, par R. Hirsch. Paris, E. Blondell la Rougery, Ministère de l'air, 1938. 186 p. diagrs., illus., tables. (Pub. scient. et tech. Min. de l'air, B.S.T. no. 138)

Sicherheit in der luft; bemühungen um das absturzsichere flugzeug, von C. Walther Vogelsang. Berlin, R. C. Schmidt and co., 1938. 96 p. diagrs., illus.

Stability and control, by E. W. C. Wilkihs. (In his Aeroplane design, London, Charles Griffin and co., ltd., 1938, chap. 4, p. 64-97. diagrs., illus.)

Stability and control, by E. F. Relf. (In Handbook of aeronautics of the R.A.S., London; New York, Isaac Pitman and son, 1938, v. 1, p. 1, p. 58-88, 597-98)

STABILITY - GENERAL

Sulla determinazione dei coefficienti aerodinamici che interessano la stabilità del velivolo, di Camillo Possio. Reale Politecnico di Torino, Torino, 1938. (Vincenzo Bous, Torino, commendazioni) v. 3, no. 6, p. 141-69. (Laboratorio di aeronautica, pubblicazione no. 122)

Theoretical stability and control characteristics of wings with various amounts of taper and twist, by Henry A. Pearson and Robert T. Jones. Washington, U. S. Govt. print. off., 1938. 17 p. diagrs., illus., tables. (N.A.C.A. Report no. 635)

Uber die anwendung der energetischen methode auf stabilitätsprobleme, von K. Marguerre. (In Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938. p. 433-43. illus., tables)

Wende-und rollschwingungen eines flugzeuges, von E. Bartsch. (In Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938. p. 233-48. diagrs., tables)

Control surface and wing stability problems, by A. G. Pugsley. Journal of the R.A.S., London, Nov. 1937, v. 41, no. 323, p. 975-96. illus.

Cinematographic study of stability and maneuver ability of aircraft, by C. Brachet. La Science et la vie, Paris, Sep. 1937, no. 243, p. 181-88. illus.

Determination of airplane stability, by M. Wanner. Aero digest, New York, Aug. 1937, v. 31, no. 2, p. 22, 64.

The Graphical solution of stability problems, by R. K. Mueller. Journal of Aeronautical sciences, New York, June 1937, v. 4, no. 8, p. 324-31. diagrs., illus.

Present status of stability research, by Charles H. Zimmerman. Journal of Aeronautical sciences, New York, June 1937, v. 4, no. 8, p. 338-40.

Motion of two-control airplane in rectilinear flight after initial disturbances with introduction of controls following an exponential law, by A. Klemin. Washington, 1937. 30 p. illus. (N.A.C.A. Technical notes no. 615)

Nomenclature for stability coefficients, by L. W. Bryant and S. B. Gates. London, H. M. Stat. off., 1937. 8 p. illus. (A.R.C. R. & M. no. 1801)

Note on effects of landing flaps on stability and control, by S. B. Gates. London, H. M. Stat. off., 1937. 3 p. (A.R.C. R. & M. no. 1732)

Stability and control, by N. A. V. Piercy. (In his Aerodynamics, New York, D. Van Nostrand co; London, The English universities press, 1937. chap. 4; 12, p. 95-137; 381-416. diagrs., illus., tables)

Stabilitäts-und leistungsberechnungen für flugzeuge, mit anwendung auf den praktischen flugbetrieb, von Gerhard Otto. Berlin-Charlottenburg, C. J. E. Volckmann, 1937. 86 p. diagrs., illus., tables.

Stability of motion, by W. Wedrov. C.A.H.I., Moscow, 1937, 13 p. (Report no. 327)

The Use of the principle of minimum potential energy in problems of static equilibrium, by D. Williams. London, H. M. Stat. off., 1937. 18 p. illus., tables. (A.R.C. R. & M. no. 1827)

Massenausgleich von rudern, von K. Leiss. Luftfahrtforschung, Berlin, Dec. 20, 1936, v. 30, no. 12, p. 430-32.

Stability and control, by Alexander Klemin. Journal of Aeronautical sciences, New York, Dec. 1936, v. 4, no. 2, p. 75.

Similitude aérodynamique des avions, par L. Arsandaux. L'Aéronautique, Paris, 1936, (Bulletin L'Aérotechnique) May 1936, v. 15, no. 161, p. 53-60. diagrs., illus., tables.

On the stability problems in hydrodynamics, by C. L. Perkeris. Proceedings Cambridge philosophical society, London, Jan. 1936, v. 32, pt. 1, p. 55-66. (Also Journal of Aeronautical sciences, New York, Apr. 1938, v. 5, no. 6, p. 237-40)

STALLED FLIGHT

Stalls and spins must go, by T. Hardin. Popular aviation, Chicago, July 1940, v. 27, no. 1, p. 14-15, 66, 68. illus.

Stalling on tapered wings, by P. Naxir. Aero digest, New York, Apr. 1940, v. 36, no. 4, p. 36-38.

Still warning. (C.M.W. stall indicator tested in Australia) Flight, London, Feb. 1, 1940, v. 37, no. 1623, p. 105.

The C.M.W. stall indicator, by Clive Murray Walker. The Aeroplane, London, Jan. 5, 1940, v. 59, no. 1493, p. 22. illus.

How to avoid stalling, by W. E. Gray. Flight, London, Oct. 26, 1939, v. 36, p. 340a-340c. illus. (Abstract Groupement pour recherches aéronautiques, Paris, Dec. 10, 1939, v. 28, p. 4213)

STALLED FLIGHT

Flight loading conditions. Air commerce bulletin. Washington, Sep. 15, 1939, v. 11, no. 3, p. 78-88. diagrs., illus.

The Effect of fixed wing slots on the stall characteristics of a modern bi-motor aeroplane, by C. L. Johnson and R. L. Thoren. Journal of Aeronautical sciences, New York, Sep. 1939, v. 6, no. 11, p. 437-45. diagrs., illus.

High speeds and the shock stall, by W. F. Hilton. Aeroplane, London, June 7, 1939, v. 56, no. 1463, p. 731-32. illus.

Normalising the stall. Flight, London, June 1, 1939, v. 35, p. 565-66. illus., table.

Das Geschwindigkeitsfeld eines beliebigen dünnen und schwach gewölbten tragflügelprofils, von K. Jaeckel. Luftfahrtforschung, Berlin, Apr. 20, 1939, v. 16, no. 4, p. 209-11.

Uber die strömungsforgänge an steil angestellten und überzogenen tragflügeln bei parallelbewegung und drehung, von M. Köhler. Luftfahrtforschung, Berlin, Apr. 20, 1939, v. 16, no. 4, p. 158-77. diagrs.

Auftriebsberechnung und strömungsvorgänge beim überschreiten des maximal auftriebs, von P. Jordan. Luftfahrtforschung, München und Berlin, Apr. 1939, v. 16, no. 4, p. 184-97. diagrs., illus.

Schiebe-rollmomente bei knickflügeln, von W. Richter. Luftfahrtforschung, München und Berlin, Feb. 20, 1939, v. 16, no. 2, p. 112-20. diagrs., illus.

Delaying the stall. Flight, London, Feb. 9, 1939, v. 35, no. 1572, p. 143-46. diagrs., illus.

Experimental lift distribution across span of stalled rectangular aerofoil, by R. Mathieson. Royal technical college, journal, Glasgow, Jan. 1939, v. 4, pt. 3, p. 490-500. diagrs., illus.

A Comparison of several tapered wings, designed to avoid tip stalling, by R. F. Anderson. Washington, 1939. 19 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 713)

Experiments on wing stalling, by Leonard Bairstow. (In his Applied aerodynamics, New York, Longmans, Green and co., 1939, chap. 4, p. 201-11. illus.)

The N.A.C.A. stall warning indicator, by Charles A. Ross. Air corps news letter, Washington, Dec. 1, 1938, v. 21, no. 23, p. 1-2. illus.

Flow observations with tufts and lampblack of the stalling of four typical aerofoil sections in the N.A.C.A. variable density tunnel, by I. H. Abbott and A. Sherman. Washington, 1938. 10 p. diagrs., tables. (N.A.C.A. Technical notes no. 672)

N.A.C.A. stall-warning indicator, by F. L. Thompson. Washington, 1938. 8 p. diagrs., illus., table. (N.A.C.A. Technical notes no. 670)

Some aspects of the stalling of modern low-wing monoplanes, by H. A. Soulé and M. N. Gough. Washington, 1938. 13 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 645)

On distribution of lift across span near and beyond stall, by C. Wieselsberger. Journal of Aeronautical sciences, New York, July 1937, v. 4, no. 9, p. 363-65. diagrs., illus., tables.

Some stalling and engine-on effects, by N. A. V. Piercy. (In his Aerodynamics, New York, D. Van Nostrand co., 1937, p. 401-05. diagrs., illus., tables)

Stalled flight, by G. V. Lachmann. Flight, (Aircraft engineer section) London, Feb. 27, 1936, v. 29, no. 1418, p. 228f-228h.

Stalling of tapered wings, by W. R. Andrews. The Aircraft engineer, London, (Supplement to Flight) Jan. 23, 1936, v. 29, no. 1413, p. 1-3.

Stalling of tapered wings, by G. V. Lachmann. Flight, London, Jan. 2, 1936, v. 29, no. 1410, p. 10-13.

Stalling of tapered wings, by R. H. Smith. Journal of Aeronautical sciences, New York, Jan. 1936, v. 3, no. 3, p. 97-102. diagrs.

GENERAL

Airscrew balancing, by Lockwood J. Taylor. Flight, Aircraft engineer, (Supplement) London, Jan. 30, 1941, v. 39, no. 1674, p. 98-99.

Airplane stability and control from a designers point of view, by O. C. Koppen. Journal of Aeronautical sciences, New York, Feb. 1940, v. 7, p. 135-40.

GENERAL

Aufgaben und formeln aus aerodynamik und flugmechanik, von Gerhard Siegel. München, R. Oldenbourg, 1940. 177 p. diagr., illus., tables.

Dynamics, by Alfred Peter Poorman. (In his Applied mechanics, New York, McGraw-Hill book co., 1940, p. 185-346. diagrs., illus.)

Principles of aircraft flight, by Hilton F. Lusk. (In his General aeronautics, New York, The Ronald press co., 1940, revised edition, chap. 2, p. 16-87. diagrs., illus.)

Simple aerodynamics and the airplane, by Clifton Carroll Carter. New York, The Ronald press co., 1940. 510 p. diagrs., illus.

British aeronautical research for 1938. (Stability and control) Aeroplane, London, Aug. 23, 1939, v. 57, p. 251-54.

Aero engineering: a collected work. New York, The Steiger co., 1939, 3 v., 2,000 p. diagrs., illus., tables.

Aerodynamic laws and theories, by Daniel J. Brimm, Jr. (In his Airplanes and elementary engineering, Scranton, Pa., International text-book co., 1939, chapter-Elementary aeronautical engineering, p. 1-10. diagrs., illus.)

Aircraft design, by C. H. Latimer-Needham. London, Chapman and Hall, 1939, v. 1, 228 p. diagrs., illus.

Elements of practical aerodynamics, by Bradley Jones. New York, J. Wiley and sons, inc.; London, Chapman and Hall ltd., 1939. 436 p. diagrs., illus. (2nd edition)

Flugzeugberechnung, Bd. I. Grundlagen der strömungslehre und flugmechanik. Bd. II. Bearbeitung von entwürfen und unterlagen für den festigkeitsnachweis, von R. Jaeschke. München und Berlin, R. Oldenbourg 1939, v. 1-2, 174 p; 202 p. diagrs., illus., tables. (Review Zeitschrift des V.D.I., Berlin, Nov. 4, 1939, v. 83, no. 44, p. 1187)

The General motion of the aeroplane, by S. Brodetsky. (In Proc. 5th International congress for applied mechanics, New York, John Wiley and sons, 1939, p. 599-605. diagrs., illus.)

International congress for applied mechanics, 5th Proceedings. New York, John Wiley and sons, inc., 1939. 748 p. (Held at Harvard university and Massachusetts institute of technology, Sep. 12-16, 1938)

An Introduction to aeronautical engineering, by A. C. Kermode. New York, Pitman publishing corp., 1939, v. 1, 249 p. illus.

BIBLIOGRAPHY ON DYNAMICS OF THE AIRPLANE

Prediction of airplane performance, by Leonard Bairstow. (*In his* book on Applied aerodynamics, New York, Longmans, Green and co., 1939, chap. 13, p. 701-39)

Stability of the motions of aircraft, by Leonard Bairstow. (*In his* book on Applied aerodynamics, New York, Longmans, Green and co., 1939, chap. 14, p. 740-809)

Simple aerodynamics, by J. Van Hattum. The Aero-modeller, Leicester, Apr.-Nov. 1938, v. 3, no. 29-36, p. 224-25; 278-79; 334-35; 392-93; 452-53; 508-10; 560-61; 620-21.

Dynamic errors of rate of climb meter, by C. S. Draper and G. V. Schliestett. Journal of Aeronautical sciences, New York, Sep. 1938, v.5, no. 11, p. 426-30.

Centrage et performances, par J. Delsuc. L'Air, Paris, Mar. 20, 1938, no. 441, p. 194, 199. illus.

Aérodynamique expérimentale, par R. Pris. Paris, La Rougerie et Gauthier-Villars, 1938, v. 1-2, p. 280; 316. (Bulletin des services techniques du Min. de l'air no. 83-83b)

Elementary matrices and some applications to dynamics and differential equations, by Robert Alexander Frazer, W. J. Duncan and A. R. Collar. Cambridge, England, Cambridge university press, 1938. 416 p. diagrs.

Elementi di aerodinamica e di dinamica del volo, di Giulio C. Costanzi. Editoriale aeronautica, Roma, 1938, v. 1, p. 314. illus.

Experiments in practical aerodynamics, by Alexander Klemin and E. B. Schaefer. S.A.E. journal, New York, 1938. 14 p. (Preprint of a paper to be presented at the annual meeting Jan. 10-14)

Flight handbook - a guide to aeronautics, by William Oke Manning. London, Flight publishing co., 1938. 150 p. illus.

Handbook of aeronautics. Vol. 1, A Compendium of the modern practice of aeronautical engineering; Vol. 2, Aero-engines, design and practice; Vol. 3, Design, data and formulae-aircraft and airscrews; New York, Pitman publishing corp., 1938, v. 1, 654 p; v. 2, 496 p; v. 3, 250 p. diagrs., illus., tables.

Practical aerodynamics for the airplane pilot or mechanic, by Frederick Bryton Thompson. Detroit, Thompson aviation publishers, 1938. 109 p. diagrs., illus.

Practical aeronautical engineering, by Willis L. Nye. San Francisco, Aviation press, 1938. 187 p. illus.

GENERAL

A Simple study of flight, by James D. Hadden. New York, Pitman publishing corp., 1938. 88 p.

Static longitudinal stability and longitudinal control of autogiro rotors, by M. Schrenk. Washington, 1938. 17 p. diagrs., illus. (N.A.C.A. Technical memorandums no. 879) (Translated Luftfahrtforschung, München und Berlin, R. Oldenbourg, June 6, 1938, v. 15, no. 6, p. 283-89)

Comment on évalue, grâce au cinéma, stabilité et maniabilité des avions, par Charles Brachet. La Science et la vie, Paris, Sep. 1937, v. 52, no. 243, p. 181-88. illus.

On the dynamics of symmetrical flight of an aeroplane, by E. Ikonnikov. Technical physics of the U.S.S.R., Leningrad, June 1937, v. 4, no. 6, p. 431-37. diagrs., illus.

Experimental research on the effectiveness of ailerons and elevators, by T. Ogawa and K. Itô. Tokyo Imperial university, Tokyo, May 1937, v. 12, no. 7, p. 353-420. (Aeronautical research institute report no. 151)

Aerodynamics, by N. A. V. Piercy. New York, D. Van Nostrand co., 1937. 423 p. diagrs., illus., tables.

Aeroplane design, by E. W. C. Wilkins. London, Charles Griffin and co., ltd., 1937. 318 p. diagrs., illus., table.

Leçons d'aérodynamique appliquée, par Albert Toussaint. Paris, Hermann and co., 1937. 64 p.

Section II

BIBLIOGRAPHY ON VIBRATIONS AND FLUTTER

VIBRATION - DAMPING

Measurement of period of natural vibration of airscrew blade, by J. Obata and Y. Yosida. Tokyo Imperial university, Tokyo, July 1940, v. 15, no. 5, p. 99-108. (Aeronautical research institute report no. 191)

The Elements of pendulum dampers, by R. W. Zdanowich and T. S. Wilson. Proceedings of the Institution of mechanical engineers, London, June 1940, p. 182-210. illus., tables.

Rubber as anti-vibration material, by C. W. Kosten. India rubber journal, London, May 18, 1940, v. 99, no. 20, p. 481-85.

Die Instabilität linearer und nichtlinearer schwingungen, von W. Wenke. Hochfrequenztechnik und elektroakustik, Frankfurt a/M, Mar., Apr. 1940, v. 55, no. 3; 4, p. 94-101; 109-20.

Damping formulas and experimental values of damping in flutter models, by R. P. Coleman. Washington, 1940. 28 p. (N.A.C.A. Technical notes no. 751)

Graphical treatment of vibration and aircraft engine dampers, by C. H. Powell. Brooklyn, N. Y., Bookcraft, 1940. 288 p. diagrs., illus.

Schwingungsdämpfer für flugzeuge, von A. G. Messerschmidt. Flugsport, Berlin, Nov. 8, 1939, v. 31, no. 17, p. 67.

Trillingbestrijding door middel van kurk, door N. J. Visser. De Ingenieur, Utrecht, Sep. 22, 1939, v. 54, no. 38, p.w125-32.

Trillingbestrijding door middel van rubber, door N. J. Visser. De Ingenieur, Utrecht, Sep. 22, 1939, v. 54, no. 38, p. w125-32.

Improvements relating to hydraulic vibration dampers, by H. C. M. Stevens and F. Foster. Journal of the R.A.S., London, Sep. 1939, v. 43, no. 345, p. 755.

Dämpfungsarten für die schwingungen des kreiselhorizontes und ihre wirkungen im kurvenflug, von M. Schuler und K. Magnus. Luftfahrtforschung, München und Berlin, June 20, 1939, v. 16, no. 6, p. 318-25.

Sul sistema ammortizzatore dei carrelli d'aeroplani, di P. Callerio. L'Aeronautica, Roma, June 1939, v. 19, no. 6, p. 625-40. diagrs., illus.

Torsional vibration damper. Engineering, London, May 12, 1939, v. 147, no. 3826, p. 558-60.

VIBRATION - DAMPING

Het Ontstaan en voorkomen van trillingen, door J. J. Koch. De Ingenieur, Utrecht, Apr. 28, 1939, v. 54, no. 17, p. w23-28.

Zur berechnung der symmetrischen längsbewegung eines flugzeuges, von K. Solf. Luftfahrtforschung, München und Berlin, Apr. 20, 1939, v. 16, no. 4, p. 198-208.

Vibration isolation. Product engineer, New York, Apr. 1939, v. 10, no. 4, p. 137-41.

A New torsional vibration damper. Automotive industries, Philadelphia, Mar. 11, 1939, p. 344, 349. illus.

Alcune recenti ricerche sopra lo smorzamento interno dei materiali, di R. Giovannozzi. L'Aerotecnica, Roma, Mar. 1939, v. 19, no. 3, p. 245-72. illus. (Abstract Aircraft engineering, Sep. 1939, v. 11, no. 127, p. 353)

Moments of inertia of annular bodies, by W. Samuels. Automotive industries, Philadelphia, Feb. 11, 1939, v. 80, no. 6, p. 166-69. illus., table.

Les Amortisseurs dynamiques de vibrations. La Revue technique Hispano-Suiza, Boro-Colombes (Seine), Jan. 1939, no. 3, p. 5-24. diagrs., illus.

Dynamic vibration dampers having pendular masses, by B. Solomon. (In Proceedings 5th International congress for applied mechanics, New York, John Wiley and sons, 1939, p. 663-68)

Incitement of the vibrations of systems consisting of several members and damping by coupling to resonant vibration dampers, by H. Günther. Mitteilungen des Wöhler Institutes, Braunschweig, 1939, v. 34, p. 7-55.

Le Damper à friction constant, par Wassutinsky. Technique automobile et aérienne, Paris, Dec. 1938, v. 29, no. 187, p. 161-64.

Vibration isolation of aircraft power plants, by E. S. Taylor and K. A. Browne. Journal of Aeronautical sciences, New York, Dec. 1938, v. 6, no. 2, p. 43-49.

Schwingungstilgung durch das Taylorpendel, von O. Kraemer. Zeitschrift des V.D.I., Berlin, Nov. 5, 1938, v. 82, no. 4, p. 1297-1300. illus.

Dämpfung erzwungener schwingungen durch ein angekoppeltes system, von E. Lehr und A. Weigand. Forschung aus dem gebiete des ingenieurwesens, Berlin, Sep.-Oct. 1938, v. 9, no. 5, p. 219-28. illus., table.

Teorie ed esperienze sullo smorzamento interno dei materiali, di R. Giovannozzi. Aerotecnica, Roma, Oct. 1938, v. 18, no. 10, p. 1095-1133. illus.

Ein dynamischer drehschwingungsdämpfer. Schweizerische bauzeitung, Zürich, June 11, 1938, v. 111, no. 24, p. 303.

Dämpfung der drehschwingungen durch flüssigkeitskupplungen, von Fritz Söchting. Zeitschrift des V.D.I., Berlin, June 4, 1938, v. 82, no. 23, p. 701-03.

Dynamisches verhalten eines schwingenden systems mit trockener reibungsdämpfung unter der einwirkung periodischer impulse, von R. A. Boruand. Schweizer archiv, Solothurn, Switzerland, June 1938, v. 4, no. 6, p. 158-69. illus., tables.

Erzwungene schwingungen mit konstanter dämpfung, von H. Ziegler. Ingenieur archiv, Berlin, June 1938, v. 9, no. 3, p. 163-78. illus., tables.

Kritische betrachtungen zur berechnung von resonanzschwingungsdämpfern, von O. Föppl. Automobiltechnische zeitschrift, Stuttgart, May 25, 1938, v. 41, no. 10, p. 265-67. illus., tables.

Les Amortisseurs hydrauliques de vibrations pour commandes d'aviation. Aéronautique, Paris, Apr. 1938, v. 20, no. 227, p. 41-49.

On the vibration insulating by means of springs and damping materials, by E. Meyer and L. Keidel. Journal of the Acoustical society of America, Chicago, Apr. 1938, p. 355-58 and 359-61. illus., tables.

Theorie der reibungschwingungsdämpfer, von K. Klotter. Ingenieur-archiv, Berlin, Apr. 1938, v. 9, no. 2, p. 137-62. illus., tables.

Pendal zum dämpfen von wellendrehschwingungen, von W. Natanson. Tekhnika vosdushnovo flota, Moscow, 1938, no. 6, p. 55-69.

Oscillazioni flessionali forzate di aste prismatiche con smorzamento interno, di R. Giovannozzi. Aerotecnica, Roma, Dec. 1937, v. 17, no. 12, p. 1047-1066. illus., tables.

Recent work in vibration, by J. P. Den Hartog. Transactions of the American society of mechanical engineers, New York, Sep. 1937, v. 4, no. 3, p. A-136-38.

Study of damping characteristics of electric vibration, by S. Higuchi. Tokyo Imperial university, Tokyo, Sep. 1937, v. 26, no. 2, p. 236-42.

VIBRATION -- DAMPING

Use of rubber in vibration isolation, by E. H. Hull. Journal of Applied mechanics, New York, Sep. 1937, v. 4, no. 3, p. A-109-14.

Die Praktische bedeutung der dämpfungsfähigkeit, insbesondere von stählen, von O. Föppl. Mitteilungen des Wöhler Institutes, Berlin, 1937, pt. 30, p. 5-34. (Also Journal of the Iron and steel institute, London, Feb. 1936, v. 134, no. 2, p. 393-455)

Die Berücksichtigung der inneren dämpfung beim ebenen problem der flügelschwingung, von R. Kassner. Luftfahrtforschung, Berlin, Nov. 20, 1936, v. 13, no. 11, p. 388-90. (Abstract Journal of the R.A.S., London, Oct. 1937, v. 41, no. 322, p. 945-52)

Spiral diagrams to solve vibration damping problems, by H. O. Fuchs. Product engineering, New York, Aug. 1936, v. 7, no. 8, p. 294-96.

VIBRATION -- ENGINE

Coupled oscillations of aircraft engine-propeller systems, by Maurice A. Biot. Journal of Aeronautical sciences, New York, July 1940, v. 7, no. 9, p. 376-82. illus.

Aircraft vibrations caused by the engine-propeller group and how to counteract them, by G. A. Lianvsmine. Aeronautical engineering, U.S.S.R., Moscow, Apr.-May 1940, no. 4-5, p. 70-92. illus.

Propeller requirements for submerged engine installations, by G. W. Brady. S. A. E. journal, New York, May 1940, v. 46, p. 195-96.

Resonance vibrations in the induction and exhaust systems of in-line engines, by O. Lutz. Luftfahrtforschung, München und Berlin, Apr. 20, 1940, v. 17, no. 4, p. 123-28. diagrs., illus.

Problem of the torsional stiffness decisive in torsional vibrations of crankshafts, by J. Meyer. Luftfahrtforschung, Berlin, Feb. 20, 1940, v. 17, no. 2, p. 54-55.

The Control of vibration in aircraft, by H. H. Bruderlin. Aviation, New York, Jan. 1940, v. 39, no. 1, p. 40-41. illus.

Graphical treatment of vibration and aircraft engine dampers, by C. H. Powell. Brooklyn, N. Y., Bookcraft, 1940. 288 p. diagr., illus., tables.

Vibration characteristics of aircraft engine propeller system, by C. M. Kearns. S. A. E. journal, New York, Dec. 1939, v. 45, no. 6, p. 540-48.

BIBLIOGRAPHY ON VIBRATIONS AND FLUTTER

Piston ring blowby and flutter. Institution of Automobile engineers, London, Nov. 1939, p. 9. (Automobile research committee report no. 9165B)

Permissible amplitudes of torsional vibration in aircraft engines, by F. Masi. S. A. E. journal, New York, July 1939, v. 45, p. 311-20. diagr.

Dynamic suspension; a method of aircraft engine mounting, by K. A. Browne. S. A. E. journal, New York, May 1939, v. 44, p. 185-92. diagrs., illus.

Vibration of radial aircraft engines, by G. P. Bentley. Journal of Aeronautical sciences, New York, May 1939, v. 6, no. 7; 8, p. 278-83; 333-41.

Über resonanzschwingungen in den ansaug- und auspuffleitungen von reihenmotoren I, von O. Lutz. Luftfahrtforschung, München und Berlin, Mar. 20, 1939, v. 16, no. 3, p. 139-47. illus., tables.

Schwingungen des systems motor-luftschraube, von K. Lürenbaum. Schriften der Deutschen akademie der luftfahrtforschung, Berlin, Jan. 13, 1939, no. 5, p. 19-44, 55-66.

Ausbreitung von ebenen wellen grosser schwingungsamplitude in gasen, von L. Ehret. (In Jahrbuch 1939, der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1939. p. 53-61)

The Effect of vibration on heat transfer by free convection from a horizontal cylinder, by R. C. Martinelli and L. M. K. Boelter. (In Proceedings 5th International Congress for applied mechanics, New York, John Wiley and sons, 1939, p. 578-85)

Vibration isolation of aircraft power plants, by E. S. Taylor and K. A. Browne. Journal of Aeronautical sciences, New York, Dec. 1938, v. 6, no. 2, p. 43-49.

Vibrations des ressorts de soupapes, par L. Dufresne. Société des ingénieurs de l'automobile, journal, Paris, Dec. 1938, v. 11, no. 10, p. 435-43, 446-47. illus.

Vibration in aircraft, by C. C. Carter. Engineering, London, Aug. 26, Sep. 2, 1938, v. 146, no. 3789; 3790, p. 256-58; 285-88.

Torsional vibrations in "in-line" aircraft engines, by R. M. Hazen and O. V. Montieth. Transactions S. A. E. journal, New York, Aug. 1938, v. 42, no. 8, p. 335-41.

Anti-vibration mountings. Flight, London, Jan. 13, 1938, v. 33, no. 1516.

VIBRATION - ENGINE

Beeinflussung von drehschwingungen durch pendende massen, von A. Stieglitz. (In Jahrbuch 1938, der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938. pt. 2, p. 164-78)

Biegeschwingungen an sternmotorkurbelwellen, von K. Maier. (In Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938. p. 160-63)

Sur le calcul des vibrations critiques de torsion dans les moteurs d'aviation à réducteurs, par George Lehr. Bulletin de l'Association technique maritime et aéronautique, Paris, 1938, no. 42, p. 461-79.

Vibration absorption in engine mounts and instruments; Lord rubber mounts. Aero digest, New York, Sep. 1937, v. 31, p. 64, 66. diagrs., illus.

Oscillations de torsion, par N. Habif. Arts et métiers, Paris, July 1937, no. 202, p. 148-54.

Spring support of the engine unit in motor vehicles and aeroplanes, by B. Riediger. Zeitschrift des V.D.I., Berlin, June 19, 1937, v. 81, no. 25, p. 713-20. diagrs., illus., tables.

Aircraft engine installation vibration problem, by J. M. Tyler. S. A. E. journal, New York, June 1937, v. 40, no. 6, p. 252-62.

Uber das schallfeld der kolbenstrahlen, von L. Gutin. Technical Physics, U.S.S.R., Moscow, 1937, v. 4, no. 5, p. 404-13. diagrs., illus.

Vibration isolating radial engine mounts, by W. E. Stitz. Washington, U. S. Govt. print. off., 1937. 25 p. (Air corps information circular no. 707)

VIBRATION - MEASURING INSTRUMENTS

Instrument for measuring low frequency accelerations in flight, by C. S. Draper and W. Wrigley. Journal of Aeronautical sciences, New York, July 1940, v. 7, p. 388-401. diagr., illus.

Application of piezoelectric vibration pick-ups to measurement of acceleration, velocity and displacement, by B. Baumzweiger. Journal of the Acoustical society of America, Chicago, Jan. 1940, v. 11, no. 3, p. 303-07. illus.

Rivelatore elettrodinamico di vibrazioni meccaniche ed applicazioni, di G. Giulietti. Elettrotecnica, Milano, Sep. 25, 1939, v. 26, no. 18, -p. 631-32.

De Havilland airscrew vibration testing equipment. Interavia, Geneva, Sep. 14, 1939, no. 673, p. 9.

Measuring the stresses in vibrating airscrews by electricity. Aeroplane, London, Aug. 30, 1939, v. 57, p. 281-83. illus., tables.

High speed Geiger torsiograph. Automobile engineer, London, Aug. 1939, v. 29, no. 387, p. 293-95, 367.

Crankshaft vibration measurements with the sound analyzer, by L. E. Packard. General radio experimenter, Cambridge, Mass., July 1939, v. 14, no. 2, p. 6-7. illus.

A Method for indicating speeds of rotation, by G. Morris and R. S. Silver. Journal of Scientific instruments, London, May 1939, v. 16, no. 5, p. 149-50.

Methods and means for determining the natural modes of vibration of mechanical structures, by H. C. Hayes and E. Klein. Journal of American society of naval engineers, Washington, Nov. 1938, v. 50, no. 4, p. 519-26.

Aircraft vibrations; R. A. E. device for their quantitative measurement, by F. G. Barlow. Aircraft engineering, London, Oct. 1938, v. 10, no. 118, p. 301-05. illus. (Abstracts Luftwissen, Berlin, Feb. 1939, p. 80 and Groupement pour recherches aéronautiques, Paris, Mar. 30, 1939, v. 3, p. 308)

Messgerät für schwingungsuntersuchungen. Tonfrequenz-spektrometer, von E. Freystedt und F. Bath. Archiv für technisches messen, München, Sep. 1938, no. 87, p. 119-20. illus., tables.

Piezoelektrische "Vibration Pick-ups," by R. K. Hellmann. Archiv für technisches messen., München, July 1938, no. 85-J, 766-1, p. T 94. illus., tables.

Vibration pickups. Instruments, Pittsburgh, July 1938, v. 11, no. 7, p. 187.

An Improved method for calculating free vibrations in systems of several degrees of freedom, by W. M. Dudley. Journal of Applied mechanics, New York, June 1938, v. 5, no. 2, p. A-61, A-66. illus.

Die Magnetoelastische aufzeichnung von torsionsschwingungen, von S. Wintergerst. Forschung, Berlin, May-June 1938, v. 9, no. 3, p. 162-64.

VIBRATION - MEASURING INSTRUMENTS

L'Utilisation de la méthode du double pendule en aéronautique, par E. Vellay et Le Rolland. École nationale supérieure aéronautique. Revue technique association ingénieurs aéronautiques, Paris, May-June 1938, no. 9, p. 171-82. illus., tables.

Messverfahren zur einfachen bestimmung von mechanischen schwingungen, von F. Allendorff. Zeitschrift des V.D.I., Berlin, May 14, 1938, v. 82, no. 20, p. 569-74. illus.

Untersuchungen zur schaffung geeigneter kraftfahrzeug- und flugzeugschwingungsmesser, von F. I. Meister. Wissenschaftliche abhandlungen der Physik-technik, Reichsanstalt, Berlin, Apr. 1938, v. 22, no. 4, p. 233-45.

Measuring vibration velocity, by C. D. Greentree. General electric review, Schenectady, N. Y., Sep. 1937, v. 40, no. 9, p. 432-37.

Vibration measurement in flight, by C. S. Draper, G. P. Bentley and H. H. Willis. S. A. E. journal, New York, Sep. 1937, v. 41, no. 3, p. 428-36.

Electro-magnetic vibrators for time marks and recorder drives on aircraft, by W. Krumnow. Zeitschrift des V.D.I., Berlin, July 8, 1937, v. 81, no. 32, p. 943-45.

Recording vibrational strains in structural members, by C. K. Graveley. Aero digest, New York, July 1937, v. 31, no. 1, p. 50.

Aircraft vibration flight testing, by G. P. Bentley. Journal of Aeronautical sciences, New York, June 1937, v. 4, no. 8, p. 316-19.

Sunbury knock indicator. Cylinder vibration pick up. Automotive industries, Philadelphia, May 8, 1937, v. 76, no. 19, p. 693-94.

M.I.T.-Sperry apparatus for measuring vibration, by C. S. Draper, G. P. Bentley and H. H. Willis. Journal of Aeronautical sciences, New York, May 1937, v. 4, no. 7, p. 281-85.

New instrument for recording vibration in flight. Automotive industries, Philadelphia, Mar. 20, 1937, v. 76, no. 12, p. 469.

Il Problema della vibrazione dei velivoli, di A. Fiore. Aerotecnica, Roma, Mar. 1937, v. 17, no. 3, p. 187-216.

Les Récents perfectionnements apportés aux trépido-mètres et aux accéléromètres, par H. W. Koch et W. Zeller. Génie civil, Paris, Feb. 6, 1937, v. 110, no. 2843, p. 140-42.

Uber die herstellung und messung langsamer sinusförmiger luftdruckschwankungen, von Georg Bekesy. Annalen der physik, Leipzig, Mar. 1936, v. 25, no. 5, p. 413-32. diagrs., illus., tables.

VIBRATION - PROPELLER

Propeller vibrations filmed in test flights. Product engineering, New York, Jan. 1941, v. 12, p. 37-38.

Propeller vibrations filmed in test flights at Wright field. U. S. Air services, Washington, Oct. 15, 1940, v. 23, no. 20, p. 1-18.

Effects of propeller slipstream and tail position on vibration characteristics of Lockheed-Lodestar, by R. L. Thoren and C. L. Johnson. Journal of Aeronautical sciences, New York, Aug. 1940, v. 7, no. 10, p. 419-24.

Aircraft vibrations caused by the engine-propeller group and how to counteract them, by G. A. Lianvsmine. Aeronautical engineering, U.S.S.R., Moscow, Apr.-May 1940, no. 4-5, p. 70-92.

The Control of vibration in aircraft, by H. H. Bruderlin. Aviation, New York, Jan. 1940, v. 39, no. 1, p. 40-41. illus., tables.

Vibration of crankshaft-propeller systems new method of calculation, by M. A. Biot. Journal of Aeronautical sciences,, New York, Jan. 1940, v. 7, no. 3, p. 107-12.

The Curtiss electric constant speed feathering propeller, by Richard Markey. (In his "The Aircraft propeller," New York; Chicago, Pitman publishing corporation, 1940, p. 95-96)

Propeller tests, by Richard Markey. (In his "The Aircraft propeller," New York; Chicago, Pitman publishing corporation, 1940, p. 56-58)

Vibration of propellers, by J. P. Den Hartog. (In his "Mechanical vibrations," New York, McGraw-Hill book co., 1940, p. 306-14. diagrs.)

Vibration characteristics of aircraft engine-propeller systems, by C. M. Kearns. S. A. E. journal, New York, Dec. 1939, v. 45, no. 6, p. 540-48.

Intense combination-tones produced by flutter of airscrew, by J. Obata and Y. Yosida. Proceedings of the Physico-mathematics society of Japan, Tokyo, Oct. 1939, v. 21, no. 10, p. 588-93.

VIBRATION - PROPELLER

Zur Berücksichtigung des fliehkrafteinflusses auf die biegeeigenfrequenzen von luftschrauben, von J. Meyer. Luftfahrtforschung, München und Berlin, Aug. 20, 1939, v. 17, no. 8, p. 429-30.

Schwingungsablenkung durch permanente teilresonanz, von K. H. Grossman. Schweizerische bauzeitung, Zürich, July 29, 1939, p. 53-56.

Crankshaft vibration measurements with the sound analyzer, by L. E. Packard. General radio experimenter, Cambridge, Mass., July 1939, v. 14, no. 2, p. 6-7. illus.

Drgania śmigla, pisarz Korewa-Borowicz. Przeglad mechaniczny, Warsaw, Feb. 25, 1939, v. 5, no. 4, p. 165-74.

Causes of propeller vibration, by Ernest G. Vetter. (In his "Aeronautics simplified," Buffalo, N. Y., Foster and Stewart, 1939, p. 29)

New technique for vibration study; combined strain gage and oscillograph. Aero digest, New York, Nov. 1938, v. 33, no. 5, p. 80, 83-84.

Fliehkraft - schwingungen von an der nabe allseits gelenkig angebrachten luftschraubenblättern, von A. Havers und J. Meyer. (In Jahrbuch 1938, der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938. p. 420-22)

Die Verlagerung der eigenfrequenzen eines elastisch aufgehängten flugmotors infolge der kreiselwirkung der luftschraube, von J. Meyer. (In Jahrbuch 1938, der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938. p. 179-82)

The Vibration of airscrew blades. (Extension of the theory given in A.R.C. R. & M. no. 1758), by B. C. Carter. London, H. M. Stat. off., 1938. 24 p. (A.R.C. R. & M. no. 1848)

On metal airscrews. Aeroplane, London, Sep. 22, 1937, v. 53, p. 365. illus.

Vibration problem in aircraft-propeller designing, by F. W. Caldwell. S. A. E. journal, New York, Aug. 1937, v. 41, no. 2, p. 372-80.

GENERAL

Frequency and vibration problems of rotors (rotating wing aircraft), by R. H. Prewitt and R. A. Wagner. Journal of Aeronautical sciences, New York, Aug. 1940, v. 7, p. 444-50. diagr.

The Analysis of symmetrical vibrating systems, by Louis A. Pipes. Journal of Applied physics, New York, Apr. 1940, v. 11, no. 4, p. 279-82.

BIBLIOGRAPHY ON VIBRATIONS AND FLUTTER

On the natural frequencies of vibrating systems, by R. V. Southwell. Proceedings of Royal society of London, London, Mar. 8, 1940, v. 174, no. 959, p. 433-57.

Vibration problems. Systems with one degree of freedom, by J. Ormondroyd. Journal of Applied mechanics, New York, Mar. 1940, v. 7, no. 1, p. A34-38. (Part 3)

Das Beschleunigungs unabhängige pendel von einem freiheitsgrad auf einer kleinkreisbahn, von Erich Schmid. Luftfahrtforschung, München und Berlin, Jan. 20, 1940, v. 17, no. 1, p. 32-36. diagrs.

Certain vibration problems solved by means of an analogous problem in heat conduction, by G. Green. Philosophical magazine, London, Jan. 1940, v. 29, no. 192, p. 100-02.

Control of vibration in aircraft, by H. H. Bruderlin. Aviation, New York, Jan. 1940, v. 39, no. 1, p. 40-41.

Vibratory characteristics of vibrafram, by L. B. Ham and H. T. Darracott. Journal of the Acoustical society of America, Chicago, Jan. 1940, v. 11, no. 3, p. 333-40. illus.

Mechanical vibrations, by J. P. Den Hartog. New York, McGraw-Hill book co., 1940, 448 p.

Mechanics applied to vibrations and balancing, by D. L. Thornton. New York, John Wiley and sons, 1940. 529 p. diagr., illus., tables.

Dynamic problems of the tricycle alighting gear (III nose-wheel shimmy), by Jean Wylie. Journal of Aeronautical sciences, New York, Dec. 1939, v. 7, no. 2, p. 61-67. diagr.

Mathematical-machine determination of the vibration of accelerated unbalanced rotor, by J. G. Baker. Journal for Applied mechanics, New York, Dec. 1939, p. A145-A150. illus., tables.

Transverse vibration of curved membranes, by C. E. Weatherburn. Philosophical magazine, London, Dec. 1939, v. 28, no. 191, p. 632-34.

Freie ungedämpfte schwingungen einer zwischen vorgespannten federn angeordneten masse, von A. Weigand. Forschung aus dem gebiete des ingenieurwesens, Berlin, Sep.-Oct. 1939, v. 10, no. 5, p. 249-50.

Uber die stabilität der bewegungen des pendels mit oszillierendem aufhängepunkt, von K. Klotter und G. Kotowski. Z.A.M.M., Berlin, Oct. 1939, v. 19, no. 5, p. 289-96.

GENERAL

Vibration problems, by J. Ormondroyd. Journal for Applied mechanics, New York, Sep. 1939, p. A-127-A-130. illus.

Fundamental equation of vibration with internal friction, by S. Endo. Transactions of the Society of mechanical engineers of Japan, Tokyo, Aug. 1939, v. 5, no. 20, p. I-16-8.

Die Kleinen schwingungen eines stark durchhängenden seiles, von Hans Seitter. Z.A.M.M., Berlin, Aug. 1939, v. 19, no. 4, p. 211-15.

Resonanzschwingungen eines systems bei vektorieller überlagerung der erregenden impulse, von Gerhard Heinrich. Z.A.M.M., Berlin, Aug. 1939, v. 19, no. 4, p. 216-23.

Festigkeit im flugzeugbau, von Nissen. Junkers-nachrichten, Dessau, May-June 1939, v. 10, no. 5-6, p. 153-56. diagrs., illus.

Zum Schulerschen prinzip von der beschleunigungsfreien abstimmung, von K. L. Stellmacher. Z.A.M.M., Berlin, June 1939, v. 19, no. 3, p. 154-65. diagrs.

Graphical analysis of free vibrations of helical springs, by R. J. de Juhasz. Journal of the Franklin institute, Philadelphia, May 1939, v. 227, no. 5, p. 647-72. illus., tables.

Some applications of normal coordinates to engineering vibration systems, by R. Eksergian. Journal of the Franklin institute, Philadelphia, May 1939, v. 227, no. 5, p. 673-90.

Fortschritte der mechanischen schwingungsforschung, von H. G. Kuessner. Zeitschrift des V.D.I., Berlin, Feb. 11, 1939, v. 83, no. 6, p. 149-55.

Einige schwingungsprobleme aus der elastizitätstheorie, von Hidekiti Kataoka. Transactions of the Society of mechanical engineers of Japan, Tokyo, Feb. 1939, v. 5, no. 18, p. S2-S4.

Uber die ähnlichkeitsbedingungen für flatterschwingungen von tragflügeln, von W. Kaufman. Luftfahrtforschung, München und Berlin, Jan. 10, 1939, v. 16, no. 1, p. 21-25. diagrs., illus.

Le Vibrazioni nei velivoli, di C. C. Carter. Rivista aeronautica, Roma, Jan. 1939, v. 15, no. 1, p. 142-66.

The Effect of vibration on heat transfer by free convection from a horizontal cylinder, by R. C. Martinelli and L. M. K. Boelter. (_In_ Proceedings 5th International congress for applied mechanics, New York, John Wiley and sons, 1939, p. 578-85)

BIBLIOGRAPHY ON VIBRATIONS AND FLUTTER

The Natural vibrations of cylindrical conical and spherical shells, by K. Federhofer. (In Proceedings 5th International congress for applied mechanics, New York, John Wiley and sons, 1939, p. 719-23)

Vibration problems in engineering, by S. Timoshenko. New York, D. Van Nostrand co., 1939. 470 p. illus.

Vibrations of aeroplanes, by D. L. Thornton. (In his "Mechanics applied to vibrations and balancing", London, Chapman and Hall, ltd., 1939, Chap. I. "Balancing of Engines," p. 35, 67; Chap. V. "Beams and Plates," p. 375, 382, 387, 389-91; Chap. VI. "Rotating Shafts and Discs," p. 459; Chap. VII. "General Survey," p. 477, 488, 492-93.

Vibrations of aircraft structures, by P. Dupont. (In Proceedings 5th International congress of applied mechanics, New York, John Wiley and sons, 1939, p. 598)

Vibrations des charpentes d'avions, par P. Dupont. Association technique maritime et aéronautique, Paris, 1939, p. 381-416. (Bulletin no. 43)

Determinazione dell'azione aerodinamica corrispondente alle piccole oscillazioni del velivolo, di C. Possio. Aerotecnica, Roma, Dec. 1938, v. 18, no. 12, p. 1325-51. illus., tables.

Note on the effect of rotation on the frequencies of lateral vibrations of a rod, by G. Morris. Journal of the R.A.S., London, Dec. 1938, v. 42, no. 336, p. 1084-87. illus., tables.

Steady oscillation of systems with nonlinear and unsymmetrical elasticity, by M. Rauscher. Journal of Applied mechanics, New York, Dec. 1938, v. 5, no. 4, p. 169-77.

Zur berechnung der schwingungen stabförmiger körper mit veränderlichem querschnitt, von V. Blaess. Ingenieur archiv, Berlin, Dec. 1938, v. 9, no. 6, p. 428-35. illus., tables.

Grösse und schwingungszahlen erregender kräfte, von D. G. Suess. Fördertechnik, Berlin, Oct. 26, Nov. 9, 1938, v. 31, no. 22; 23, p. 430-35; 445-53.

New technique for vibration study. Aero digest, New York, Nov. 1938, v. 33, no. 5, p. 80, 82-84.

La Protezione degli strumenti di bordo contro le vibrazioni. Rivista aeronautica, Roma, Oct. 1938, v. 14, no. 10, p. 137-41. illus.

The Vibration of aircraft, by F. G. Barlow. Aircraft engineering, London, Oct. 1938, v. 10, no. 116, p. 301-05. illus.

GENERAL

Vibration in aircraft, by B. C. Carter. Engineering, London, Sep. 2, 1938, p. 284-88. illus., tables.

L'Avion actuel et le problème des vibrations, par P. Dupont. Technique moderne, Paris, Sep. 1, 1938, v. 30, no. 17, p. 575-84. diagrs.

Schwingungen von rechteckigen bodenplatten der flüssigkeitsbehälter, von Sadaichi Endo. Transactions of the Society of mechanical engineers of Japan, Tokyo, Aug. 1938, v. 4, no. 16, p. 196-200.

Torsional vibration analysis by models, by G. G. McDonald. Engineer, London, June 17, 1938, v. 165, no. 4301, p. 676.

Highest frequency of torsional vibration, by G. G. McDonald. Engineer, London, May 13, 1938, v. 165, p. 542-44. diagrs., illus.

A Graphical method of analysis for torsional vibrations, by J. Dick. Engineer, London, Mar. 11, 1938, v. 165, no. 4287, p. 267-68. diagrs.

Matrix-operational methods in mechanical vibrations, by L. A. Pipes. Journal of the Franklin institute, Philadelphia, Mar. 1938, v. 225, no. 3, p. 343-49.

Ricerche sulle oscillazioni di flesso torsione in galleria di vento, di H. Voight. L'Aerotecnica, Roma, Mar. 1938, v. 18, no. 3, p. 314. (*Also* Luftfahrtforschung, München und Berlin, Aug. 1937, v. 14, no. 8, p. 427-33)

Torsional vibration, by Li Teng-Ko. Aircraft engineering, London, Mar. 1938, v. 10, no. 109, p. 76.

Frequency of longitudinal and torsional vibration of unloaded and loaded bars, by R. M. Davies. Dublin philosophical magazine and journal of science, London; Edinburgh, Feb. 1938, v. 25, no. 167, p. 364-88.

Beeinflussung von drehschwingungen durch pendelnde massen, von Albert Stieglitz. (*In* Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938, v. 2, p. 164-78)

Einführung in die technische schwingungslehre, Bd. 1, Einfache schwinger, von K. Klotter. Berlin, Julius Springer, 1938, 206 p. diagrs., illus., tables.

Festigkeitsfragen bei der gestaltung neuzeitlicher flugzeuge, von O. Hissen. (*In* Jahrbuch 1938 der Deutschen luftfahrtforschung, ergänzungsband, München und Berlin, R. Oldenbourg, 1938. p. 158-63)

BIBLIOGRAPHY ON VIBRATIONS AND FLUTTER

Generalised analysis of experimental observations in problems of elastic stability, by E. E. Lundquist. Washington, 1938. 13 p. diagrs., illus., tables. (N.A.C.A. Technical notes no. 658)

Natural frequencies of torsional vibration in branched systems, by J. Ormondroyd. (*In* Stephen Timoshenko Commemoration book, 1938, p. 171-78) (*Also* Zentralblatt für mechanik, Berlin, Dec. 30, 1939, v. 9, no. 4, p. 180-81)

Das Physikalische pendel grosser schwingungsdauer im looping. II. Bemerkung zum pendel von 84 minuten schwingungsdauer, von E. Schmid. (*In* Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938. p. 6-9. diagrs.)

Present state of the mathematical theory of small vibrations, by S. L. Sobolev. Publ. Inst. Seiwmol. Acad. sci., U.S.S.R., 1938, v. 79, p. 81-97.

Schwingungen in schraubenförmigen ventilfedern, von A. Hussmann. (*In* Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938, pt. 2, p. 119-33. illus., tables)

Über die fehlweisungen der bordmessgeräte bei betriebsmässiger erschütterung, von F. von Grunherr und K. Klotter. (*In* Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938, pt. 3, p. 3-5)

Versuchsbestimmung der eigenen schwingungsfrequenz von flugzeugkonstruktionen, von I. Ananyev. Technische mitteilungen der ZAGI, Berlin, 1938, no. 175, p. 1-27. illus., tables.

Wende- und rollschwingungen eines flugzeuges, von E. Bartsch. (*In* Jahrbuch 1938, der Deutschen luftfahrtforschung. München und Berlin, R. Oldenbourg, 1938. p. 233-47. illus., tables)

Modern aids to vibration study, by E. H. Hull. Journal for Applied mechanics, New York, Dec. 1937, v. 4, no. 4, p. 151-55. diagrs.

Über den resonanzbegriff bei nichtlinearen schwingungen, von Rudolf Iglish. Z.A.M.M., Berlin, Oct. 1937, v. 17, no. 5, p. 249-58.

Indagini sulle vibrazioni dei velivoli. Aerotecnica, Roma, Aug.-Sep. 1937, v. 17, no. 8-9, p. 721-35. illus., tables.

Compensation of strain gauges for vibration and impact, by W. M. Bleakney. U. S. Bureau of standards, Journal of research, Washington, D. C., June 1937, v. 18, no. 6, p. 723-29.

GENERAL

Beitrag zur berechnung der eigenschwingzahlen räumlicher stabwerke, von F. Reinitzhuber. Ingenieur-archiv, Berlin, May 1937, v. 8, no. 5, p. 349-63. illus., tables.

Il Problema delle vibrazioni dei velivoli, di G. A. Amedeo Fiore. L'Aerotecnica, Roma, Mar. 1937, v. 17, no. 15, p. 187-216. diagrs., illus., tables.

Behavior of thin wall monocoque cylinders under torsional vibration, by R. E. Pekeisma. Washington, 1937. 9 p. (N.A.C.A. Technical notes no. 607)

Gleichgewicht und schwingungen von verdrehten stäben, von S. Tumarkin. Supreme council of national economy, Moscow, 1937. 41 p. illus.
(C.A.H.I. Report no. 341)

Zur berechnung der eigenschwingungen der kugelschale, von K. Federhofer. Wiener Bericht, Wien, 1937, v. 146, no. 1-2, p. 47-69.

Natural vibration frequencies of structural members as indication of end fixity and magnitude of stress, by B. C. Stephens. Journal of Aeronautical sciences, New York, Dec. 1936, v. 4, no. 2, p. 54-60.

Approximate methods to calculate the frequencies of vibration, by G. Morris. Journal of the R.A.S., London, Nov. 1936, v. 40, no. 311, p. 815-32. (Abstract L'Aerotecnica, Roma, Feb. 1937, v. 17, no. 2, p. 149)

FLUTTER

WINGS AND CONTROL SURFACES

Ricerche sperimentali sulle azioni aerodinamiche sopra l'ala oscillante, di P. Cicala. Aerotecnica, Roma, Jan. 1941, v. 21, no. 1, p. 46-53. diagrs.

The Vibrating airfoil with aerodynamically compensated control surfaces, by H. G. Kuessner and L. Schwarz. Luftfahrtforschung, München und Berlin, Dec. 10, 1940, v. 17, no. 12, p. 337-54. illus.

Über ein besonderes ersatzsystem zur berechnung von flügelschwingungen, von W. Biermann und W. Dessecker. Luftfahrtforschung, München und Berlin, Oct. 26, 1940, v. 17, no. 10, p. 314-19.

Graphical solution of the bending-aileron case of flutter, by L. Arnold and W. B. Bergen. Journal of Aeronautical sciences, New York, Oct. 1940, v. 7, no. 12, p. 495-508.

FLUTTER

Ritzgeräte zum aufzeichnen von schwingungen an flugzeugen, von H. Freise. Zeitschrift des V.D.I., Berlin, Aug. 17, 1940, v. 84, no. 33, p. 595-602.

Wing frequencies of multi-engined monoplanes, by R. H. Miller. Journal of Aeronautical sciences, New York, Apr. 1940, v. 7, no. 6, p. 256-58.

Some remarks on wing and tail flutter, by E. Billeter. Flugwehr und technik, Berlin, Feb. 1940, v. 2, no. 2, p. 44-45.

Airplane wing flutter, by J. P. Den Hartog. (In his "Mechanical vibrations", New York, McGraw-Hill book co., 1940, p. 368-72. diagr., illus.)

The Frequencies of cantilever wings in beam and torsional vibrations, by C. P. Burgess. Washington, 1940. 9 p. (N.A.C.A. Technical notes no. 746)

Note sul calcolo della velocità critica delle ali a sbalzo per vibrazioni di flessione e torsione, di G. A. G. Schepisi. L'Aerotecnica, Roma, Nov.-Dec. 1939, v. 19, no. 11-12, p. 1025-37. diagrs. (Abstract Aero digest, New York, May 1940, v. 36, no. 5, p. 167)

Flutter speed, a routine method for calculating a conventional cantilever wing, by J. C. K. Shipp. Flight, London, Oct. 26, 1939, v. 36, no. 1609, p. 340c-d, 335.

Static and dynamic model similarity, by F. Nagel. Journal of Aeronautical sciences, New York, Sep. 1939, v. 6, no. 11, p. 468-69.

Uber die darstellung gewisser in der theorie der flügelschwingungen auftretender integrale durch zylinderfunctionen, von Julian Bonder. Z.A.M.M., Berlin, Aug. 1939, v. 19, no. 4, p. 251-52.

Gedankengänge zur flatterberechnung, von F. Teichmann. Luftfahrtforschung, München und Berlin, June 20, 1939, v. 16, no. 6, p. 283-308. diagr., illus., tables.

Wing vibration in relation to engine masses and elasticity of the supports, by V. A. Sudinin. Aeronautical engineering, U.S.S.R., Moscow, May 1939, v. 13, no. 5, p. 95-97.

Faustformeln für flügelschwingungen, von A. G. Pugsley. Deutsche luftwacht, ausgabe Luftwissen, Berlin, Apr. 1939, v. 6, no. 4, p. 144.

Die Luftkräfte der harmonisch schwingenden in sich verformbaren platte, von F. Dietze. Luftfahrtforschung, München und Berlin, Feb. 20, 1939, v. 16, no. 2, p. 84-96. diagrs., tables.

WINGS AND CONTROL SURFACES

Étude des mouvements vibratoires de quelques systèmes non amortis, cas des voilures souples des avions, recherche de la vitesse critique, par F. Boyer. E.N.S.A., Revue techn. assoc. des ingénieurs L'Aéronautiques, Paris, Jan.-Feb. 1939, no. 13, p. 10-22, 67-82. diagr.

Uber die ähnlichkeitsbedingungen für flatterschwingungen von tragflügeln, von W. Kauffman. Luftfahrtforschung, München und Berlin, Jan. 1939, v. 16, no. 1, p. 21-25. diagr., illus., tables.

Comparison of theory with experiment in the phenomenon of wing flutter, by P. Cicala. Washington, 1939. 25 p. diagrs., (N.A.C.A. Technical memorandums no. 887) (From L'Aerotecnica, Roma, Apr. 1938, v. 18, no. 4, p. 412-33)

Flutter, by Leonard Bairstow. (In his "Applied aerodynamics," New York; London and Toronto, Longman's, Green and co., 1939, p. 749-52. diagr., illus.)

Flutter of airplanes, by D. L. Thronton. (In his "Mechanics applied to vibrations and balancing," London, Chapman and Hall, ltd., 1939, chap. 7, p. 479-80)

Flutter theory, by Leonard Bairstow. (In his "Applied aerodynamics," New York; London and Toronto, Longman's, Green and co., 1939, p. 796-804. diagr.)

The Influence of wing taper on the flutter of cantilever wings, by W. J. Duncan and C. L. T. Griffith. London, H. M. Stat. off., 1939. (A.R.C. R. & M. no. 1869)

Tests of a wind tunnel flutter model. Phase 1. The critical flutter speed as a function of control surface dynamic balance and natural frequencies of vibration. Washington, U. S. Govt. print. off., 1939. 30 p. (Air corps information circular no. 714)

Berechnung der kritischen geschwindigkeit für das ebene problem eines tragflügels mit querruder, von G. Ellenberger. Luftfahrtforschung, München und Berlin, Aug. 20, 1938, v. 15, no. 8, p. 395-404. illus., tables.

Il Convegno dell'associazione italiana di aerotecnica per il venticinquennio del laboratorio di aeronautica del Politecnico di Torino, di P. Cicala. Aerotecnica, Roma, Apr.-May 1938, v. 18, no. 4; 5, p. 367-497; 503-64.

L'Aérodynamique d'une aile en vibrations, par Maurice Denis. C. R. Acad. Sci., Paris, Feb. 21, 1938, v. 206, no. 8, p. 580-82. illus.

FLUTTER

Auflösung der aufgabe der eigen-schwingungen der flügel mit konzentrierten massen durch integralgleichungen, von I. Ananyev. Tekhnika vosdushnovo flota, Moscow, Feb. 7, 1938, no. 2, p. 41-60. illus., tables.

Mechanical aspect of flutter, by P. B. Walker. Aircraft engineering, London, Feb. 1938, v. 10, no. 108, p. 33-37, 52.

Coupled wing-fuselage vibrations, by K. Sezawa and W. Watanabe. Tokyo Imperial university, Tokyo, Jan. 1938, v. 13, p. 172-94. diagrs., illus., tables. (Aeronautical research institute report no. 160)

L'Azione aerodinamica su una superficie portante in moto oscillatorio, di C. Possio. Atti. Reale accademia nazionale lincei. Rendi. Cl. Sc. Fis. Mat. e Nat., Roma, 1938, v. 28, p. 194-200.

The Divergence speed of an elastic wing, by A. G. Pugsley and G. A. Naylor. London, H. M. Stat. off., 1938. 20 p. (A.R.C. R. & M. no. 1815)

The Effect of fuselage and elevator on the flutter of a wing, by L. S. Popov. Moscow, Scientific technical department of the Supreme council of national economy, 1938, p. 1-42. (C.A.H.I. Report no. 343)

Einfluss der einzelnen baugrössen auf das flattern und das periodische auskippen von tragflächen mit und ohne ruder, von K. Leiss. (In Jahrbuch 1938 der Deutschen luftfahrtforschung, München und Berlin, R. Oldenbourg, 1938, p. 259-73. diagr., tables)

Elevator-fuselage flutter, by G. A. Naylor. London, H. M. Stat. off., 1938. 8 p. illus., tables. (A.R.C. R. & M. no. 1836)

Wind-tunnel investigations on flexural-torsional wing flutter, by H. Voight. Washington, 1938. 12 p. diagrs., illus., tables. (N.A.C.A. Technical memorandums no. 877) (From Luftfahrtforschung, München und Berlin, Sep. 20, 1937, v. 14, no. 9, p. 427-33)

Ricerche sperimentali sulle azioni aerodinamiche sopra l'ala oscillante, di P. Cicala. Aerotecnica, Roma, Dec. 1937, v. 17, no. 12, p. 1043-46. illus., tables.

The Consideration of internal damping in the two-dimensional problem of wing vibration, by R. Kassner. Journal of the R.A.S., London, Oct. 1937, v. 41, no. 322, p. 945-52.

Flutter and allied matters. An important series of explanatory diagrams based on recent history. Aircraft engineering, London, Oct. 1937, v. 9, no. 104, p. 255-56.

WINGS AND CONTROL SURFACES

The Two-dimensional problem of wing vibration, by R. Kassner and H. Fingado. Journal of the R.A.S., London, Oct. 1937, v. 41, no. 322, p. 921-44.

Zur berechnung der auftriebskraft am schwingenden ruder, von F. Dietze. Luftfahrtforschung, München und Berlin, July 20, 1937, v. 14, no. 7, p. 361-62.

Several new problems in the theory of wing flutter, by E. Grossman, W. Keldish, L. Popov and J. Parchomlevsky. Aeronautical engineering, U.S.S.R., Moscow, June 1937, no. 6, p. 4-20.

Experimental investigations on the aerodynamic forces on an oscillating wing, by P. Cicala. L'Aerotecnica, Roma, May 1937, v. 17, no. 5, p. 405-14.

On the natural vibration of semi-cantilever beam with one end fixed or pin-jointed, by Mineo Yamamoto and Ziro Suzuki. Tokyo Imperial university, Tokyo, May 1937, v. 12, p. 319-35. diagrs. (Aeronautical research institute, report no. 149)

Wing flutter, new problems introduced by heavy wing loadings. Shall we imitate the birds? Flight, London, Apr. 15, 1937, v. 31, no. 1477, p. 366.

Vibration phenomena in ternary wing flutter, by K. Sezawa, S. Kubo and H. Miyazaki. Tokyo Imperial university, Tokyo, Apr. 1937, 40 p. (Aeronautical research institute report no. 147)

Calculated flexural - torsional flutter characteristics of some typical cantilever wings, by W. J. Duncan and H. M. Lyon. London, H. M. Stat. off., 1937. 32 p. (A.R.C. R. & M. no. 1782)

Flattern von flugzeugflächen unter berücksichtigung in richtung der grössten steifigkeit, von P. M. Riz. Moscow, Scientific technical department of the Supreme council of national economy, 1937. 20 p. illus., tables. (C.A.H.I. report no. 340)

Flügel - und leitwerksflattern, von E. P. Grossmann. Moscow, Scientific technical department of the Supreme council of national economy, 1937, p. 246. illus., tables. (C.A.H.I. report no. 284)

The Influence of differential aileron control on wing flutter, by R. A. Frazer. London, H. M. Stat. off., 1937. 20 p. (A.R.C. R. & M. no. 1723)

Schwingungen eines flügels mit einem querruder, von E. Grossmann, W. Keldish und J. Parchomlevsky. Moscow, Scientific technical department of the Supreme council of national economy, 1937. 98 p. illus., tables. (C.A.H.I. report no. 337)

FLUTTER

Le Oscillazioni flesso-torsionali di un'ala in corrente uniforme, di P. Cicala. Aerotecnica, Roma, Nov. 1936, v. 16, no. 11, p. 785-801.

Velocità critica statica e dinamica di un'ala monoplano a sbalzo, in funzione delle sue caratteristiche, geometriche, elastiche di massa e di smorzamento interno, di R. Chiappulini. Politecnico, Milano, Aug., Sep. 1936, v. 84, no. 8; 9, p. 278-95; 315-28.

Experimentelle untersuchungen über flügelschwingungen, von H. L. Studer. Mitteilungen aus dem Institut für aerodynamik, Zürich, A. G. Leemann und co., 1936. 98 p. diagrs., tables.

Flutter experiments on a model wing fitted with a dead-centre aileron control, by V. M. Falkner, W. P. Jones and C. Scruton. London, H. M. Stat. off., 1935. 10 p. diagrs., illus. (A.R.C. R. & M. no. 1686)

FLUTTER - GENERAL

Flutter research and design, by J. C. K. Schiff. Aircraft engineering, London, Aug. 1940, v. 12, no. 138, p. 247-48.

Intense combination-tones produced by flutter of airscrew, (Investigations of airscrew flutter, by J. Obata, Y. Matumura, R. Kanayama and Y. Yosida. Tokyo Imperial university, Tokyo, Jan. 1940, v. 15, no. 1, p. 126. (Aeronautical research institute report no. 187)

Damping formulas and experimental values of damping in flutter models, by Robert P. Coleman. Washington, 1940. 28 p. (N.A.C.A. Technical notes no. 751)

Propeller tests, by Richard Markey. (*In his* "The Aircraft Propeller" New York, Pitman publishing corporation, 1940, p. 56-58)

Flutter speed, by J. C. K. Shipp. Flight, London, Oct. 26, 1939, p. 45, 46, 335. illus., tables.

Internal combination tones produced by flutter of airscrew, by J. Obata and Y. Yosida. Proceedings of the Physico-mathematical society of Japan, Tokyo, Oct. 1939, v. 21, no. 10, p. 588-93.

Gedankengänge zur flatterberechnung, von A. Teichmann. Luftfahrtforschung, München und Berlin, May 5, 1939, v. 16, no. 6, p. 283-308. illus., tables.

The Flutter problem, by T. Theodorsen. (*In* Proceedings of 5th International congress for applied mechanics, New York, Wiley and sons, 1939, p. 594-97)

FLUTTER - GENERAL

Tests of a wind tunnel flutter model. Washington, U. S. Govt. print. off., 1939. 30 p. illus. (U. S. Air corps information circular no. 714) (Air corps technical report no. 4429)

Resonance tests;- their history and principles in relation to flutter problems, by A. G. Pugsley. Aircraft engineering, London, Mar. 1938, v. 10, no. 109, p. 73-75. illus., tables.

Mechanical aspect of flutter, by P. B. Walker. Aircraft engineering, London, Feb. 1938, v. 10, no. 108, p. 33-37, 52.

National physical laboratory; aerodynamics department; flutter. Engineering, London, Nov. 5, 1937, v. 144, p. 506.

Flutter research in Switzerland. Aeroplane, London, July 21, 1937, v. 53, no. 1365, p. 79.

Modern developments in design of aeroplanes, by E. F. Relf. Institution of civil engineers, London, Oct. 1936, no. 8, p. 523-66.

AUTHOR INDEX

Abbott, I.H. 32
Albach, W.H. 19,23
Allendorf, F. 43
Alston, R.P. 11,16
Ames, Jr., M.B. 3
Ananyev, I. 50,54
Anderson, R.F. 31
Andrews, W.R. 25,32
Arnold, L. 51
Arsandaux, L. 30
Autry, P. 10
Bach 2,4,9
Bader, W. 21
Bairstow, L. 12,20,23,27,31,34,53
Baker, J.G. 46
Bamber, M.J. 3,16,17,20,21
Barlow, F.G. 42,48
Bartsch, E. 2,13,19,21,29,50
Bath, F. 42
Batson, A.S. 2,3,17,21,25
Baumhauer, A.G. von 7,26
Baumzweiger, B. 41
Beebe, Jr., M.C. 32
Beerer, L.G. 24
Bekesy, Georg 44
Bentley, G.P. 40,43
Bergen, W.B. 51
Biermann, W. 51
Billeter, E. 52
Biot, M.A. 39,44
Blaess, V. 48
Bleakney, W.M. 50
Bloss, R.R. 10
Boelter, L.M.K. 47
Bolster, C.M. 25
Bonder, Julian 52
Boruand, R.A. 38
Boyer, F. 53
Brachet, C. 29,35
Brady, G.W. 39
Brimm, Jr., D.J. 10,33
Brodetsky, S. 33
Browne, K.A. 37,40
Bruderlin, H.H. 39,44,46
Bryant, L.W. 20,21,22,29
Burgess, C.P. 52
Caldwell, F.W. 45
Callerio, P. 36
Carter, C.C. 7,18,20,22,26,27 33,40, 45, 47,49
Chabinskaya, Z. 3
Chiappulini, R. 56
Ciampolini, V. 14
Cicala, P. 51,53,54,55,56
Cisotti, U. 8
Claude, Leon 6
Cohen, J. 16
Coleman, R.P. 36,56
Collar, A.R. 34
Colvin, C.H. 5
Constantin, L. 17
Cooke, P.A. 18
Coroller, L. 22
Costanzi, G.C. 34
Crocco, G.A. 21,28
Crowe, J.H. 15,25
Darracott, H.T. 46
Davies, R.M. 49
de Juhasz, R.J. 47
Dearborn, C.H. 4
Delsuc, J. 26,34
Denis, Maurice 53
Dessecker, W. 51
Dick, J. 49
Dickerman, F.N. 9
Dickinson, H.B. 6,10
Diehl, W.S. 1,5,12
Dietze, F. 52,55
Doepp, P. 24
Donlon, C.J. 15
Draper, C.S. 34,41,43
Ducout, M.S. 8
Dudley, W.M. 42
Dufresne, L. 40
Duncan, W.J. 34,53,55
Dupont, P. 48,49
Ehret, L. 40
Eksergian, R. 47
Ellenberger, G. 53
Endo, S. 47,49
Eujen, E. 5
Eula, Antonio 16
Falkner, V.M. 56
Farber, J. 10
Federhofer, K. 48,51
Findeisen, W. 13
Fingado, H. 55
Finn, E. 15
Fiore, G.A. Amedeo 43,51
Flügge-Lotz, I. 24
Föppl, O. 38,39
Foster, F. 36
Francis, R.H. 6,16,24
Frazer, R.A. 34,55
Freise, H. 52
Freystedt, E. 42

Fuchs, H.O. 39
Gadd, A.G. 22
Garnbarucci, E. 26
Gates, S.B. 4,5,9,22,29
Gianoli, M. 17
Giovannozzi, R. 37,38
Giraud, G. 14
Giulietti, G. 42
Goett, H.J. 5
Gough, Melvin N. 5,14,26,32
Gracey, W. 2,3
Graveley, C.K. 43
Gray, W.E. 2,8,20,30
Green, G. 46
Green, J.J. 12
Greentree, C.D. 43
Griffith, C.L.T. 53
Grossman, E.P. 55
Grossman, K.H. 45
Grunherr, F. von 50
Günther, H. 37
Gummer, H.J. 21,25
Gutin, L. 41
Habif, N. 41
Hadden, J.D. 35
Ham, L.B. 46
Hardin, T. 14,30
Hartmann, Edwin P. 8,14,27
Hartog, J.P. Den 38,44,46,52
Haugen, V. 19,22
Haus, F. 13,14,18
Havelock, T.H. 6
Havers, A. 45
Hayes, H.C. 42
Hazen, R.M. 40
Heinrich, G. 47
Hellmann, R.K. 42
Hesselbach, B. 28
Higuchi, S. 38
Hill, G.T.R. 7,8,11
Hilton, W.F. 5,31
Hirsch, René 18,28
Hissen, O. 49
Hoerner, S. 6,18
Hoffman, R.J. 1,19,21
Hohenemser, K. 27
House, R.O. 3,16,17,20,21
Hoyt, John R. 10
Hull, E.H. 39,50
Hunt, W. 17
Hussmann, A. 50
Iglish, Rudolf 50
Ikonnikov, E. 55
Imanaka, Y. 2
Imlay, F.H. 2,19
Indicator 10
Irving, H.B. 2,3,17,24
Itô, K. 4,35
Itokara, H. 24
Jacobs, E.N. 19
Jaeckel, K. 31
Jaeschke, R. 33
Johnson, C.L. 1,13,31,44
Jones, Bradley 7,20,27,33
Jones, R.T. 4,9,12,21,29
Jones, W.P. 56
Jordan, P. 31
Jordanoff, A. 14
Jourachenko, P. 17
Kalatschev, G. 24
Kanayama, R. 56
Kassner, R. 39,54,55
Kataoka, H. 47
Kaufman, W. 47,53
Kearns, C.M. 39,44
Keidel, L. 38
Keldish, W. 55
Kermode, A.C. 33
Kimura, H. 12
Kirschbaum, H.W. 19
Klein, E. 42
Klemin, Alexander 2,6,9,19,22
23,24,26,29,30,34
Klingemann 15
Klotter, K. 38,46,49,50
Koch, H.W. 43
Koch, J.J. 37
Kocka, V. 23
Köhler, M. 31
Kolosov, E. 22
Kondo, Masaiti 8,12,13,20
Koppen, O.C. 6,26,32
Korewa-Borowicz 45
Kosten, C.W. 36
Kotowski, G. 46
Kraemer, O. 37
Kramer, M. 16
Krueger, K.B. 16
Krumnow, W. 43
Kubo, S. 55
Küchemann, D. 24
Kuessner, H.G. 47,51
Lacaine, Jean 17
Lachmann, G.V. 32
Lanchester, F.W. 10
Latimer-Needham, C.H. 7,12,15
18,20,23,27,33
Le Rolland 43

Lehr, E. 37
Lehr, George 41
Leiss, K. 30,54
Lianvsmine, G.A. 39,44
Loehner, Rudolph 12
Lösch, F. 1
Lürenbaum, K. 40
Lundquist, E.E. 50
Lusk, H.F. 33
Lutz, O. 39,40
Lyon, H.M. 55
McAvoy, W.H. 9,14
McDonald, G.G. 49
McMillan, G.A. 22
Magnus, K. 11,36
Maier, K. 41
Mamonov, F.A. 21
Manning, W.O. 34
Marguerre, K. 29
Mariani, J. 15
Markey, Richard 44,56
Martinelli, R.C. 47
Martinov, A. 22
Masi, F. 40
Mathieson, R. 31
Matumura, Y. 56
Meister, F.I. 43
Menzel-Rogner, H. 6
Meredith, F.W. 18
Messerschmidt, A.G. 36
Metcalf, A.G.B. 25
Mettler, E. 5,11,12
Meyer, E. 38
Meyer, J. 39,45
Miller, R.H. 52
Miller, S.S. 19,23
Millikan, C.B. 26
Miyazaki, H. 55
Montieth, O.V. 40
Morris, G. 42,48,51
Motl, L.F. 10
Mottez, J. 13,17,18
Mueller, G.C. 15
Mueller, R.K. 29
Müller, Wilhelm 5,22,23
Nagel, F. 52
Natanson, W. 38
Naylor, G.A. 54
Nazir, Phiroze P. 3,30
Neihouse, A.I. 14,15,16
Nerken, A.I. 4
Nissen 47
Nutt, A.E.W. 4
Nye, Willis L. 34
Obata, J. 36,44,56
Ogawa, T. 4,12,35
Omori, J. 12
Oppelt, Winfred 7,10,13
Ormondroyd, J. 46,47,50
Ostoslavsky, E.V. 11
Otto, Gerhard 27,30
Packard, L.E. 42,45
Parchomlevsky, J. 55
Pearson, H.A. 9,13,29
Pekeisma, R.E. 51
Pepper, P.A. 23
Perkeris, C.L. 30
Piercy, N.A.V. 1,9,21,25,28
30,32,35
Pipes, Louis A. 45,49
Pishnov, V.S. 7
Poorman, A.P. 33
Popov, L. S. 54,55
Possio, Camillo 29,48,54
Powell, C.H. 36,39
Prewitt, R.H. 45
Pringle, G.E. 6,24
Pris, R. 34
Pritchard, J.L. 8
Pugsley, A.G. 9,21,22,29
52,54,57
Quick, A.W. 27
Rauscher, M. 48
Rautenberg, H.J. 26
Reeder, J.P. 5
Reid, E.G. 25
Reinitzhuber, F. 51
Relf, E.F. 8,28,57
Richard, G.C. 28
Richter, W. 4,11,20,31
Riediger, B. 41
Risberg, A.B. 25
Riz, P.M. 55
Rockel, A. 27
Romick, D.C. 11
Root, L.E. 7
Ross, Charles A. 31
Samuels, W. 37
Santangelo, S.G. 13
Schaefer, E.B. 23,34
Schepisi, G.A.G. 52
Scherbakov, G.A. 21
Schiff, J.C.K. 56
Schliestett, G.V. 34
Schmid, Erich 46,50
Schmidt, Rudolf 3,8,23
Schneider 27
Schrenk, M. 24,35

Schuler, M. 11,36
Schwarz, L. 51
Scruton, C. 56
Sears, W.R. 23
Seidman, O. 14,15,16
Seiferth, R. 24
Seitter, Hans 47
Sezawa, K. 54,55
Shenstone, B.S. 7,26
Sherman, Albert 19,32
Sherwin, S.B. 19,22
Shipp, J.C.K. 52,56
Shrenk, M. 5,28
Sibert, H.W. 10
Siegel, Gerhard 33
Silman, A. 3
Silver, R.S. 42
Silverstein, A. 7
Smilg, B. 19
Smith, R.H. 32
Sobolev, S.L. 50
Söchting, Fritz 38
Solf, K. 22,37
Solomon, B. 37
Soulé, H.A. 2,3,4,13,25,32
Southwell, R.V. 46
Stellmacher, K.L. 47
Stephens, B.C. 51
Stevens, H.C.M. 36
Stewart, H.J. 2
Stieglitz, A. 41,49
Stiess, W. 24
Stitz, W.E. 41
Stout, E.G. 26
Studer, H.L. 56
Sudinin, V.A. 52
Suess, D.G. 48
Suzuki, Z. 55
Swart, P. 6
Synge, J.L. 27
Taima, M. 24
Taits, M.A. 11
Tani, J. 24
Taylor, E.S. 37
Taylor, James B. 16
Taylor, Lockwood J. 32
Teichmann, A. 56
Teichmann, F.K. 23,52
Teng-Ko, Li 49
Theodorsen, T. 56
Thompson, F.Bryton 34
Thompson, Floyd L. 1,18,20,32
Thompson, M.J. 19
Thoren, R.L. 31,44
Thorn, A. 6
Thornton, D.L. 46,48,53
Timoshenko, S. 48
Toussaint, A. 35
Tumarkin, S. 51
Tyler, J.M. 41
Van Hattum, J. 34
Van Lammeren, T.J.W. 14
Vannucci, A. 14
Vellay, E. 11,22,43
Verdurand, A. 26
Verjanskaya, E. 17
Vetter, Ernest G. 45
Victor, Maurice 17,27
Viola, T. 20
Visser, N.J. 36
Vogelsang, C.W. 28
Voight, H. 49,54
Wagner, R.A. 45
Walker, C.M. 30
Walker, P.B. 1,54,57
Wanner, M. 23,28,29
Warsap, J.H. 17,21,25
Wassutinsky 37
Watanabe, W. 54
Weatherburn, C.E. 46
Wedrov, W. 30
Weick, F.E. 4
Weigand, A. 37,46
Weinberger, W. 6
Weinig 15
Wenk, F. 22
Wenke, W. 36
Wenzinger, Carl J. 1,3
Wetmore, J.W. 2,13
Wieselsberger, C. 32
Wilkins, E.W.C. 1,3,5,8,12,16
 21,23,28,35
Williams, D. 30
Willis, H.H. 43
Wilson, T.S. 36
Wintergerst, S. 42
Wittner, H.A. 23
Wolff, R. 1,9
Wolochov, A. 25
Workman, F. 7,8,15,27
Worley, B. 11
Wrigley, W. 41
Wurster, H. 19
Wylie, Jean 46
Yamamoto, M. 55
Yosida, Y. 36,44,56
Zdanowich, R.W. 36
Zeller, W. 43
Ziegler, H. 38
Zimmerman, C.H. 4,21,29